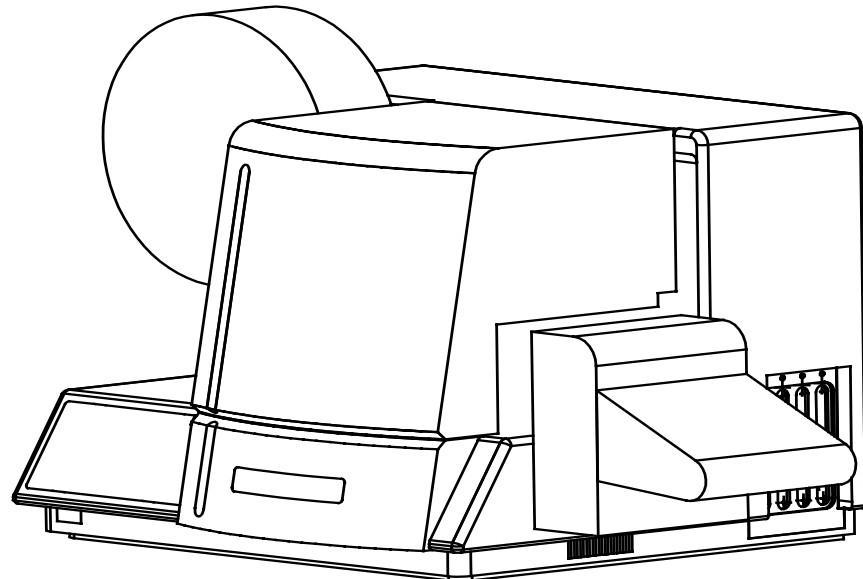

Users Manual

PAXAR

Model 656 / 636



CE

PAXAR Systems Group

Manual Edition 3.0

18 February 2002

Manual Part Number 351398

This page intentionally blank

Contents

Scope	1
Introduction	1
Safety Issues / Warnings	1
Caution	1
Warranty Information	2
Customer Responsibility	3
Location of Printer.....	3
AC Power Line	4
Unpacking.....	4
Inventory of Components	5
Printer Setup	6
Installing the Stacker	6
Fuse Configuration	7
P.C. Board Installation.....	7
TCB Dip Switch S2 Settings	8
Installing the Power Cord	8
Installing the PC Interface Cable	9
Installing the PC Software	9
Product Description	10
Printer Description.....	10
Personal Computer Specifications	11
Unit Specification	11
Printer Operation	13
Installing Ink Ribbon.....	13
Loading Stock.....	14
Butt Splice	15
Web Guide Adjustment	15
Print Head Open / Close	16
Control Panel Operation	17
Printer Controls.....	17
Indicator Lights.....	19
Front Panel Menu Functions.....	20

LCD Display	21
Display Modes	23
Maintenance / Adjustments	29
Print Head Handling	29
Print Head Cleaning	30
Print Head Replacement	31
Print Head Adjustment	32
Registration Sensor Adjustment	33
Stock out Adjustment	37
Knife Square Adjustment	37
Stacker Adjustments	38
Stock Feed Adjustment	38
Mechanical Adjustment Of Feed Roller Pressure (Blue Roller)	39
Mechanical Adjustment of Stock Sense - Mark Light Receiver	39
Electrical Connections	41
Machine Wiring	41
Relay Assembly	42
Electrical System Schematic	43
Motherboard Power Connectors	44
Electrical Trouble Shooting	45
Power Up / Sign On / Communications	45
Stock / Ink Advance	47
Print	49
Cut / Stack	51
Electrical Trouble Shooting / Machine Set Up Sequence	52
Mechanical Trouble Shooting	53
Stock	53
Ink	55
Print	56
Knife	57
Mechanical Trouble Shooting Sequence	59
Lubrication Procedure	59
Appendix A	60
Error Messages	60
Appendix B	61
Software Upgrade Chip Placement Positions	61
Appendix C	64
Ink and Stock Transfer Types	64
Appendix D	67
Knife MFG Guideline	67

Assembly Drawings	71
Unwind Assembly Drawing	72
Unwind Parts List	73
Web Guide / Light Bar Assembly Drawing.....	74
Web Guide / Light Bar Parts List	75
Drive Assembly Drawing	76
Drive Parts List.....	77
Printhead Assembly Drawing	78
Printhead Parts List.....	79
Ink Unwind / Rewind Assembly.....	80
Ink Unwind / Rewind Parts List	81
Ink Rewind Arbor Assembly	82
Ink Rewind Arbor Parts List	83
Feed & Ink Drive Assembly	84
Feed & Ink Drive Parts List.....	85
Timing Belt Threading Diagram.....	86
Timing Belt Parts List.....	87
Ink Turn Roller Assembly	88
Ink Turn Roller Parts List.....	89
Knife Assembly Drawing	90
Knife Parts List.....	91
Stacker Assembly Drawing	92
Stacker Parts List.....	93
Rewind Assembly Drawing	94
Rewind Parts List.....	95
Stock Out Sensor Assembly Drawing	96
Stock Out Sensor Parts List	97
Optional Stackers	98
4.25" Stacker Specifications	99
Optional 4.25" Pick-up Assembly	100
Optional 4.25" Pick-up Parts List.....	101
Optional 4.25" Stacker Assembly.....	102
Optional 4.25" Stacker Parts List	103
Optional Down Stacker Assembly Drawing (Part 1).....	104
Optional Down Stacker Parts List (Part 1)	105
Optional Down Stacker Assembly Drawing (Part 2).....	106
Optional Down Stacker Parts List (Part 2)	107
Optional Down Stacker Assembly Drawing (Part 3).....	108
Optional Down Stacker Parts List (Part 3)	109

Scope

Introduction

This user manual was arranged for the person who is going to operate this machine. The information is arranged in the order that is needed to install and operate the machine. It starts with general information, then to unpacking the carton, installing the ink ribbon and stock, printer operation, control panel operation, and finally care and maintenance of the unit.

We at PAXAR hope that you will come to appreciate the efforts and quality which have gone into producing your PAXAR 656 / 636 Printer and wish to remind you that you are our number one priority. We welcome any constructive comments or criticisms so that we may continue to offer you the best printer in the industry for years to come.

Safety Issues / Warnings

Caution

This machine has some pinch points. All of these areas have been well guarded and it is recommended that the safety features of this machine are never altered or defeated.

Warranty Information

Limited Warranty

PAXAR Systems Group, Division of PAXAR Corporation, extends the following warranties to the original purchaser of a PAXAR 656 / 636 which has been installed and operated using recommended procedures and operating conditions.

Parts

Parts found defective in material or workmanship will be replaced at no charge for a period of six months following the machine's shipment date. Parts damaged by negligence, abuse, or normal wear are not covered. PAXAR 656 / 636 parts classed as normal wear items include print heads, feed and platen rollers, and knife blades.

Service

Service to replace defective parts as defined above, shall be provided at no charge for a period of six months following the shipment date.

When ordering machines and supplies in the U.S.A., reference all correspondence to the address below.

PAXAR Corporation
One Wilcox Street
Sayre, Pa. 18840
Call: 1-800-96PAXAR or (570) 888-6641
Fax: (570) 888-5230

For spare parts, requests for service or technical support

Paxar Service Group
170 Monarch Lane
Miamisburg, OH 45342
Call: (800) 543-6650
Fax: (937) 865-2092 for Warranty Parts
Fax: (937) 865-2707 or (937) 865-6605 for Customer Parts Orders

For parts and service in other countries please contact your local PAXAR supplier.

PAXAR Apparel Identification Systems Group reserves the right to incorporate any modifications or improvements in the machine system and machine specifications which it considers necessary and does not assume any obligation to make said changes in equipment previously sold.

Customer Responsibility

Location of Printer

The printer weighs approximately 57 Lbs (~26Kg) and requires a table of sufficient quality and strength to handle this load while the printer is operating. PAXAR recommends an industrial type work table having the approximate dimensions of 96" wide to 30" deep to 32" high. Refer to Figure 1a.

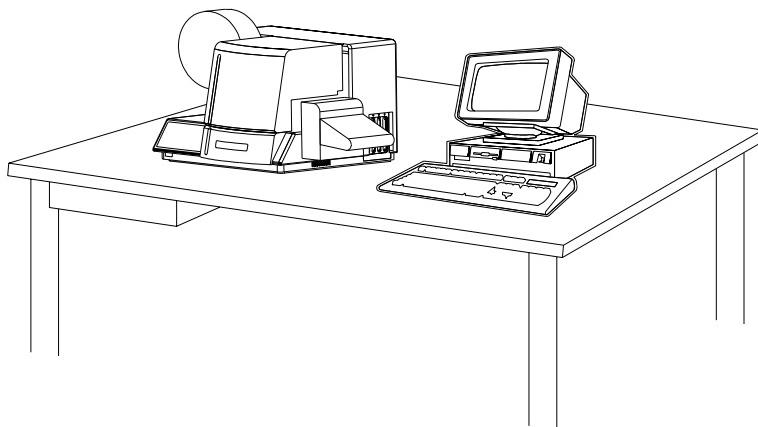


Figure 1a Recommended workstation layout.

The location of the PAXAR 656 / 636 printer should be based on human factors. The printer should be located in an area which maintains optimum flow of your product while providing for the operator's comfort. PAXAR has taken significant steps to ensure that the operator controls and operations are easily accessible. This goal can only be met, however, if the printer is also located with human factors in mind. These include the height of the printer, the space around the printer, and the accessibility to the printer.

The PAXAR 656 / 636 printer is a high resolution thermal printer. While PAXAR has designed the printer to be reasonably quiet, it is recommended to location the printer in an area where printing and cutting repetitive noise is acceptable.

The unit should always be operated with the cover closed to minimize the amount of dust and dirt in the machine.

AC Power Line

PAXAR requires that the electric service be 10 Amps @ 110VAC or 10 Amps @ 220VAC. This will allow the computer and any additional support or service equipment to be plugged into the same service.

Any electrical service which is supplying a PAXAR printer or peripheral equipment connected to a PAXAR printer should follow standard electrical code practices including proper grounding and neutral requirements.

The PAXAR printer was designed to operate in an industrial setting for extended period of time; however, the printer is controlled by a microprocessor which is very sensitive to brownouts or power spikes. For this reason as well as the minimum recommended current supply, PAXAR recommends that a separate "clean" service be installed or reserved for the exclusive use of the PAXAR printer and it's peripherals.

Unpacking

The PAXAR printer is shipped in a large cardboard box which may be difficult to move by hand.

DO NOT REMOVE THE PRINTER FROM THE CRATE OR UNPACK IN THE SHIPPING / RECEIVING DEPARTMENT.

NOTE: Unpacking in the shipping/receiving department is not recommended for the following reasons. *First:* The cardboard carton in which your PAXAR printer was shipped allows the printer to be moved with a forklift, forkcart or hand cart. Because of the weight of the printer, it is easier and safer to use one of these devices to move the printer to its intended installation location. *Second:* Leaving the printer in the carton while it is being moved within your facility will help to protect the printer during any movements to this new location. Once the printer has reached its intended location you should begin the unpacking process.

Open the printer from the top of the box (*See Figure 1b*). Do not cut deep into the carton as there are items located just under the top. Remove the items located on the top insert. Remove the top insert. Lift the printer onto the table with the two banding straps. Remove the two straps and the plastic from the printer. Inspect the machine for shipping damage. If obvious damage is discovered, contact PAXAR for further instructions - in the U.S.A. at 570-888-9116. In other countries please contact your local PAXAR supplier. Once you are satisfied that there was no obvious shipping damage to the printer, the printer can now be lifted to its intended location.

In some cases, a double box has been used to ship your printer.

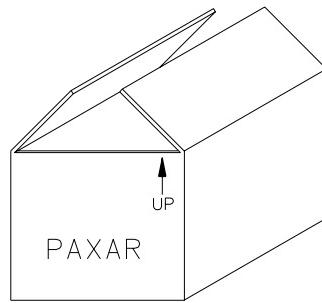


Figure 1b Shipping Carton.

Save the shipping materials to relocate the unit or return to factory for service.

Inventory of Components

The following list shows the additional parts (pieces) which should be included in your PAXAR 656 / 636 shipping container. If anything is missing, notify PAXAR immediately - in the U.S.A. at 570-888-9116. In other countries please contact your local PAXAR supplier.

- PAXAR 656 / 636 "User's Manual"
- Tool kit
- A quick-disconnect power cord
- Optional IC card for custom Logos or additional fonts that were special ordered. (in the back of the manual)
- Stacker assembly
- Optional software ordered to drive the printer.
- A serial communications cable

NOTE: Some of the above parts may be inside of the envelope which contains the tool kit.

PAXAR 656 / 636 TOOL KIT (#351390)

241149	Anti-Static Gloves (2)
921309	Hex Key Set
921316	3/16" Long Ball Driver
181301	2.5mm Ball Driver
301156	Chip Removal Tool
351398	656 / 636 Users Manual

Printer Setup

Installing the Stacker

Remove the stacker from the separate packaging. Remove the packaging from around the stacker and save with the rest of the printer packing supplies.

Swing open the top cover to the printer. Locate the large knob and two round pins on the right hand side of the printer. Loosen the knob enough to allow the stacker to slide between the printer housing and the knob. The stacker will rest on the two pins. Slide the stacker to the back until it contacts the up-right frame. Tighten the knob. Adjusting the stacker is covered later.

Install the stacker up-right rails. Remove one of the thumb screws. Insert the thumb screw through the mating hole in the up-right rail assembly. Thread the thumb screw into the mounting block. Repeat the above procedure for the other thumb screw.

There is a harness and connector leading from the back of the stacker that plugs into the center connector on the last PC board. The connector and plug are polarized. Rotate the plug until the polarized plug and connector align and push them together.

Fuse Configuration

The main fuse(s) on the Paxar 656 / 636 are located inside the AC power entry receptacle. The entry has a fuse drawer that holds the fuse(s) and selects the appropriate line voltage. If the number in the window **DOES NOT** match the AC line intended to be supplied to the printer, **DO NOT** plug the power cord in. Re configure as follows:

- 1) Using a flat blade screw driver, open the AC entry by lifting the tab just above the voltage indicator window.
- 2) Remove the red fuse drawer.
- 3) Remove all fuses and the fuse jumper if it is present.
- 4) Insert into the fuse drawer the correct number and style of fuses and fuse jumper for your application.

Configuration Number One: Line voltage between the range of
90 - 132VAC @ 50 - 60Hz

- 1) Install one 921167 - 10.0A 250V Fast Acting 1/4 x 1 1/4"

- 2) Install one Fuse Jumper

See Figure FUSE1

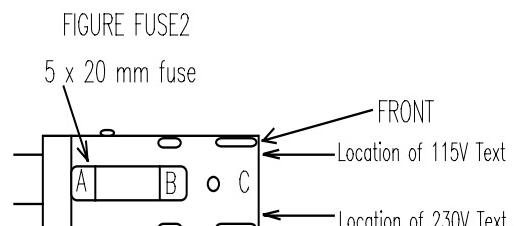
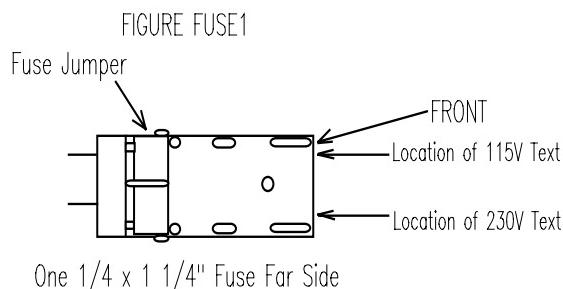
Configuration Number Two: Line voltage between the range of 180 -
265VAC @ 50 - 60Hz

- 1) Install two 921168 10.0A 250V Fast Acting 5 x 20MM

NOTE: The fuse jumper must be removed to install both 5 x 20mm fuses.

The fuses must be between points A and B as shown not B and C.

See Figure FUSE2



- 4) Reinsert the fuse drawer into the AC entry with the desired voltage up.
- 5) Close the AC entry and verify the correct voltage is now visible.

P.C. Board Installation

Install P.C. Boards as follows:

Memory Card <u>Option</u> Board (350016)	- Slot 5 (from back)
Diskless Rom Bd. (281164)	- Slot 4
Thermal Control Bd. (351105)	- Slot 2
Head Control Bd. (351106)	- Slot 1

TCB Dip Switch S2 Settings

TCB DIP SWITCH S2 SETTINGS

1 DPI	OFF = 240	ON = 300
2 DPI (Undefined)	OFF = Default	ON =
3 MACHINE TYPE	OFF = 656	ON = 636
4 MACHINE TYPE (Undefined)	OFF = Default	ON =
5 JAM SENSOR	OFF = not installed	ON = installed
6 UNDEFINED	OFF = Default	ON =
7 UNDEFINED	OFF = Default	ON =
8 UNDEFINED	OFF = Default	ON =

Installing the Power Cord

A power cord is shipped with each printer. The cord for 110 volt printers, will use the standard three prong plug used in the U.S.A. A 220 volt printer and other 110 volt configurations must have the receptacle end of the connector removed and the proper plug installed. It is the customers responsibility to have the plug and alteration work done by a certified electrician. Paxar supplies printers to many countries with many variations. Therefore we leave this to the customer to make the proper selection for their country.

Installing the PC Interface Cable

The 656 / 636 requires a 9-pin RS232 cable. This cable is provided with the printer. If the cable was not found it can be ordered from PAXAR (Part no. 351124).

The male end of the cable should be connected to the 9-pin D-shell female connector that is located on the right side of the printer. The female end of the cable is made to fit a 9-pin male RS232 connector on the back of the PC.

Installing the PC Software

The software to drive the Paxar family of printers is covered in separate documentation. The "Formatter" software to create formats by the customer for the Paxar 656 / 636 printer is a Windows application. The original software "Selfform" will not create formats for the 656 / 636. The new "Formatter" package is capable of making formats for all Paxar control printers.

The original DOS version of "PCMate" has been updated to drive the 656 / 636 printer. PCMate DOS version 3.05 or later needs to be used.

The printer is also capable of operating directly from a mainframe when using the RS232 interface and Paxar's PCL command language.

Product Description

Printer Description

The PAXAR MODEL 656 / 636 THERMAL PRINTER (*Figure 2*) is an electronic printer that can print on Fabric Tapes, Card Stock, Heat Seal Stock and Pressure Sensitive roll stocks. This printer interfaces to a computer or a main frame system that allows the customer to print computer input or even design a label with PAXAR'S PCMate Plus's "FORMATTER" program. This printer can generate a complete label printed on one side.

- Design your own labels on a PC
- Computer interface = IBM Compatible
- Mainframe direct interface
- RS232 9 Pin D shell female Serial interface connector

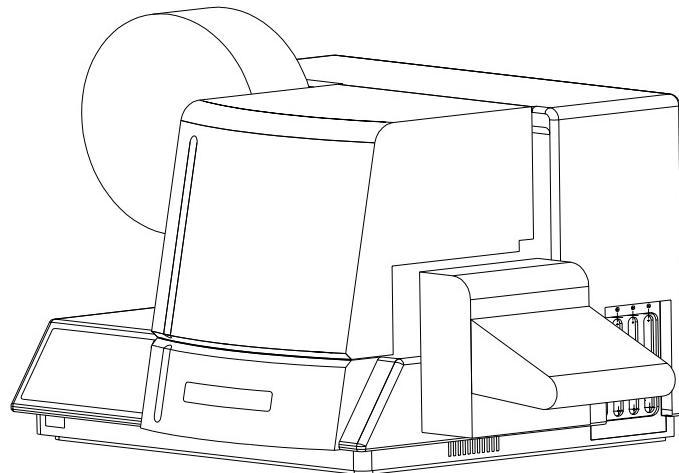


Figure 2 PAXAR MODEL 656 / 636 LABEL PRINTER

Personal Computer Specifications

This specification describes the hardware and application software requirements for the Personal Computer that is connected to the PAXAR 656 / 636 Printer.

The PAXAR 656 / 636 Printer uses a DOS Version of PCMate or a Windows version of "PcMate Plus / Formatter". These applications create the tag or label formats (layouts) then fill and transfer data to the printer through the serial port of the computer.

"PcMate Plus / Formatter" Requires the following;

- IBM® PC or compatible
- Microsoft Windows® 95 or higher (Including Win 2000, ME, and NT)
- 16 Megabytes RAM (minimum) - 32 Megabytes recommended
- 50 Megabytes (minimum) free disk space
- Pentium or Pentium Type processor - 200 Mhz or higher
- 3-1/2" floppy drive

Refer to your specific software package for proper installation procedures.

Unit Specification

Print method:	Narrow web thermal transfer or thermal direct one sided printer Speed - up to 7 IPS (177.8mm/second)
Label Size	Max: up to 5.125" (130.2mm) web x up to 7" (177.8 mm) feed cut and stacked up to 14.0" (355.6mm) feed w/ rewind Min: 1" (25.4mm) web x 1" (25.4mm) feed
Print Area	Max: up to 5" (127mm) web x up to 13.875" (352.4 mm) feed Min: None
Resolution	240 DPI x 240 DPI standard domestic 300 DPI x 300 DPI standard internationally
Fonts	Two scalable fonts resident: condensed, standard, and bold typefaces, upper and lower case 4pt up to 96pt (300 DPI), 6pt up to 96pt (240 DPI) all rotations 0°, 90°, 180°, 270°
Logos	No restriction on number or size per tag (up to maximum image area) all rotations 0°, 90°, 180°, 270°
Care Symbols	Full International Set .200" (5.1mm) x .200" (5.1mm) (240 DPI) (4 care symbols per 1" (25.4mm)) .156" (3.9mm) x .187" (4.8mm) (300 DPI) (5 care symbols per 1" (25.4mm)) All rotations 0°, 90°, 180°, 270°
Justification	Left, Right, and Center field selectable
Stock	Support for blank or pre-printed fabrics, blank or pre-printed card stock and die cut blank or pre-printed pressure sensitive
Interface	PAXAR PCL via RS232 serial port - 9 pin D-shell Verifier serial port - 8 pin MicroDin

Control Panel	Push-button printer function with 2 Line x 24 Character International LCD Backlit Display
Dimensions	16.0" (406.4 mm) high x 27" (685.8 mm) wide including stacker x 18.5" (469.9mm) deep
Weight	57 Lbs. (26Kg.)
Electrical	90-132 / 180-265 VAC 50-60Hz 10Amp Switch selectable
Temperature	41°F (5°C) to 104°F (40°C)
Humidity	5% to 90% non-condensing
Other Features	<ul style="list-style-type: none"> - Downloading of information while machine is operating - Sequenced Fields - Time/Date Stamping - Life Counts - Operator adjustable: strobe, cut position, print position, baud rate, and buffer size - Error Detection of: stock out, ink out, print head open, guard open, full stacker, and print head over-temperature - Display: labels left to print in a batch, batch ID, total life inches, total life cuts - Self Diagnostics - Missed sense mark detection and correction - Slot, Notches, Hole or Reflective registration detection
Ink Ribbon	PAXAR standard thermal colors and widths
Options	<ul style="list-style-type: none"> - VL70 Barcode Verifier System - Rewind Unit (110V or 220V) - Reflective Sensor (Back of Web Only) - PCMate - SELFFORM - Spare Parts Kit - International Hardware Kit

Printer Operation

Installing Ink Ribbon

**NOTE: WHEN THIS MACHINE IS TURNED ON FOR THE FIRST TIME,
A PAXAR FIELD ENGINEER MUST BE PRESENT.**

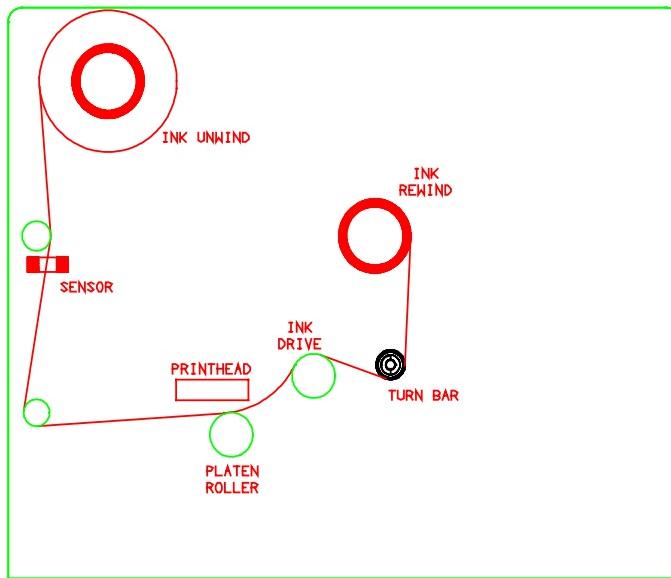


Figure 2

(Threading path)

The ink ribbon comes pre-packaged in a plastic bag. For best results, leave the ink ribbon wrapped in this bag until you are ready to use it in the printer. Use the procedure and diagram below for loading the ink.

- 1) Unwrap the ink ribbon and put it on the ink-ribbon supply arbor (*Figure 2*) by pressing it on to the arbor when the three slots are lined up.
- 2) Make sure the ink ribbon comes off the roll in the direction shown below and is threaded as illustrated (*see Figure 2*).

NOTE: A new ink ribbon has a leader which makes it easier to use when threading the ribbon through the print area.

- 3) Put an empty ink-ribbon take-up core on the ink-ribbon take-up arbor. The ink take-up core must be at least as wide as the ink supply. The tape on the supply roll of ink will be used to fasten the leader to the core.
- 4) Advance the ink until the leader starts to wrap around the take-up core.
- 5) Lower the take-up arbor into place. You will have to rotate the ink arbor as the swing arm is returned to the drive roller to keep excess slack ink from between the print head and the take up roller.

NOTE: Make sure that the ink-ribbon take-up core and the ink-ribbon supply roll are against the edge guide plate so that the ink ribbon tracks straight through the print station.

Loading Stock

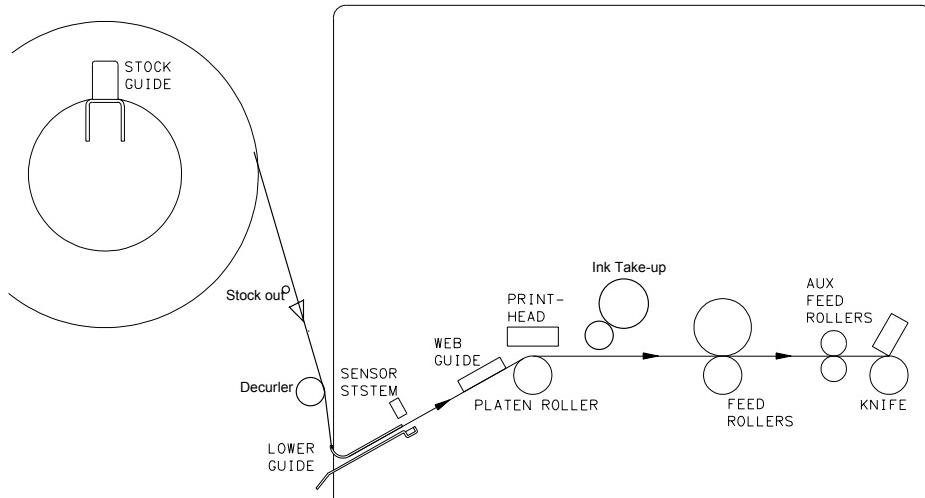


FIGURE 3 STOCK THREADING

LOADING STOCK FOR THE FIRST TIME

- 1) Slide the outboard stock guide to a position wider than the roll of stock to be loaded. Set the stock roll core over the outboard guide and slide the roll to the back guide. Move the outboard stock guide in until it contacts the stock roll.
- 2) Remove the tape or pull the glued end of the stock loose from the supply roll of stock. Pull off about 2 feet (.5 m) of stock to thread it through the printer.
NOTE: If the material was glued to the core, cut off all material that has glue on any surface.
- 3) Open the print head by pressing the release lever.
- 4) Open the web guide just before the print head platen roller to a width wider than the stock to be used.
- 5) With the cover in the up position, slide the leading edge of the stock through the lower guide that also contains the sensor system. Keep the stock to the back of the printer as the unit is a back justified printer.
- 6) As the stock exits the sensor area, continue to slide the stock through the print station. At this point you may need to direct the edge of the stock below the ink drive roller.
- 7) With the feed roller open, slide the stock through the two feed rollers, aux. feed and through the knife into the stacker approximately 1/2 to 3/4 of an inch.
- 8) Check that the stock is still to the back of the printer.
- 9) Adjust the front web guide, just in back of the platen roller, until it just misses the front guide. This is to allow for the slight tolerance variation in the stock.
- 10) Close the feed roller and the print head station.
- 11) Rewind any loose stock onto the supply roll.

Butt Splice

NOTE: DO NOT RUN BUTT SPLICES THROUGH THE PRINT STATION

The PAXAR 656 / 636 has been designed with the operators need to change supplies quickly in mind. Re threading the stock is quicker than butt splicing. If you have determined a butt splice is necessary, tape the free end of the new stock roll & the free end still in the printer together. Make sure you have determined how the new roll will go on the printer to prevent any twist in the stock.

Following the procedure previously outlined, load new supply roll onto the printer. Remove all slack by rotating the supply roll counterclockwise. Advance splice beyond the print station. This can best be accomplished by using the stock feed function switch combination (see push button description in Control Panel section).

NOTE: Whenever stock of a different type or width is put on the printer, a sample run should be performed. If the print quality is acceptable, you can immediately begin your production run. If the print quality needs to be optimized, refer to the Setup Procedures and perform the procedure needed to make the necessary improvement.

Web Guide Adjustment

The Paxar 656 / 636 printer has been designed with the operators needs in mind. Therefore there are only two web guides in the printer that may need to be changed as the width of the rolls change for formats. Neither of these adjustments require a tool. Guide adjustments have already been covered in the stock loading procedure.

The first guide is on the roll support bar. The front guide must be slid to the back of the printer to hold the supply roll against the back guide plate. Place your thumb against the round stub close to the support bar. Push the guide until it firmly contacts the front of the supply roll. This will hold the supply against the back guide. This completes the adjustment for this guide.

The second guide is located just to the left of the print head and platen roller. This guide must be set close to the front edge of the card stock but must not pinch the edges. If the guide is too tight, the card stock will have rolled up edges. To move this guide place your finger to the inside or the guide opposite the guide pressure screw and pull to widen the opening. To close down the opening, place your thumb against the side of the pressure screw to slid the guide in.

NOTE: THE BACK EDGE OF THE WEB GUIDES HAVE BEEN FACTORY SET. CHECK THAT THE FORMAT HAS BEEN MADE CORRECTLY BEFORE MAKING FURTHER ADJUSTMENTS.

There are two independent adjustments and one fixed back guide. The one fixed back guide is opposite the platen roller guide. This has been located to control the edge of the stock to the first dot on the print head. This location is critical to Paxar's Formatter software. Do not adjust this guide with out consulting a Paxar service engineer.

The adjustable back guide is located on the back of the stock support bar. This guide is moved by loosening the button head screw located to left of the support bar. Loosen the screw and slide the forward or back as needed. The ideal location is to measure from the front of the plate 31/32" (24.6mm) back to the housing.

The only other adjustment for the back of the web is the back stacker up-right rail. To move the location of the up-right loosen the knob under the stacker and slide the unit in or out as needed. The up-right rail should be located approx. 1/16" (1.5mm) to the back of the label or tag as it enters the stacker.

Print Head Open / Close

The print head module is to be opened and closed for threading the stock and ink. The unit must also be opened to clean the head and for print head replacement. Later in the manual, under separate heading, cleaning and replacement will be covered.

The print head has an interlock switch that prevents the printer from running with the head in the open position. If the head is open the display will read GUARD OPEN. Both the top cover and head use the same command.

WARNING: DO NOT TOUCH THE PRINT HEAD WITHOUT WEARING THE ANTI-STATIC GLOVES AND THE STATIC WRIST STRAP.

To open the print head for threading supplies, press the lower portion of the latch (see figure). The head mount plate will hinge from the back to swing open.

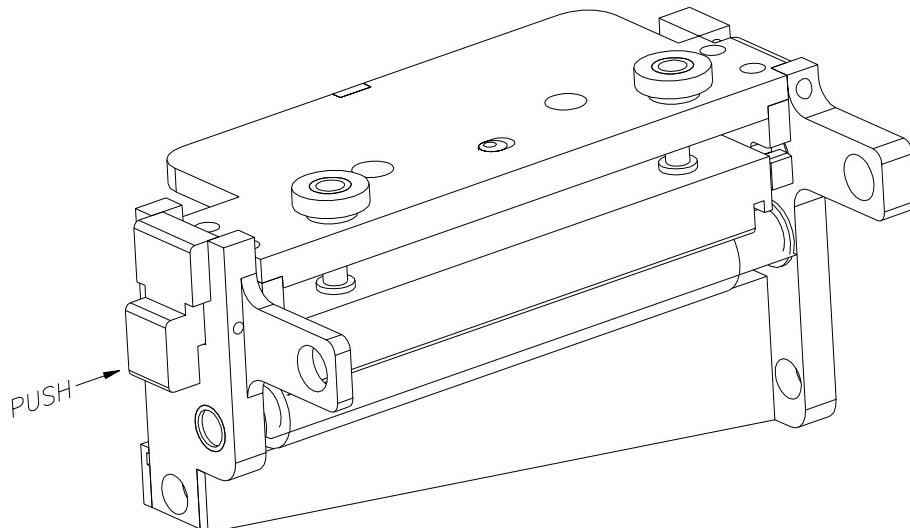
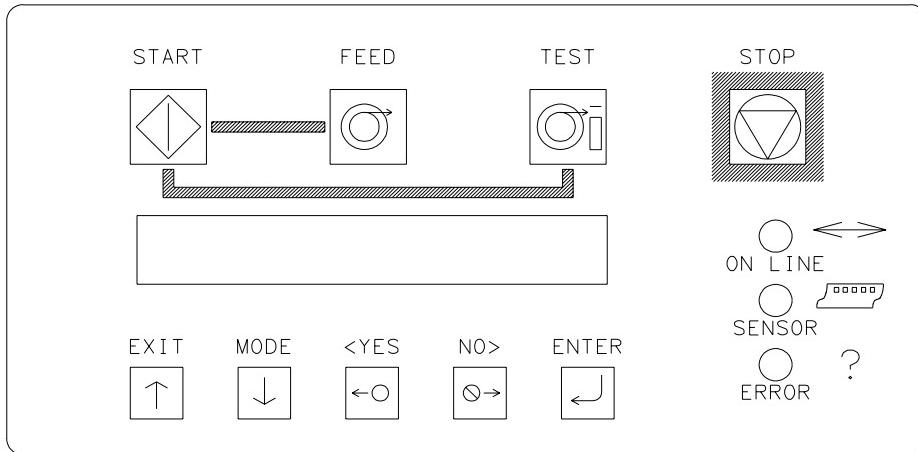


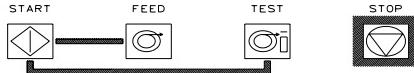
Figure Print Head Open / Closed

To close the head mount plate, move the head down while depressing the latch. When the mount plate swings past the top of the latch release

Control Panel Operation



Printer Controls



Start

- Starts the printer
- ON LINE light must be GREEN
(Batches downloaded to be printed)

Feed

- FEED and START must both be used
- Feed will stop when the buttons are released
- Labels between the head and knife will be cut and stacked as finished labels
- Stock moves through in one continuous strip
- Stock moves through without printing
- Ink will not advance, ink save on the 656 / 636 will automatically be activated.
- The print head must latch in the down position.

Test

- TEST and START must both be used

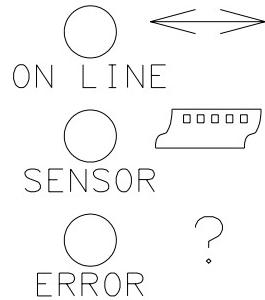
- Test will stop when the buttons are released
- Labels between the head and knife will be cut and stacked as finished labels
- Stock moves through in one continuos strip
- Stock moves through with test pattern printing
- The ink will advance with the stock.
- The print head must be latched in the down position.

Stop

- The stop button will stop the printer at the end of the current label being printed.

Indicator Lights

The Paxar 656 / 636 has three Indicator lights. These lights are used along with the LCD display to tell the operator the current status of the printer.



On Line

OFF

- Has not been powered on.
- Is in its power - up sequence.
- Failed the system test

After Power Up Sequence:

- Printer is running.

ORANGE

- System is operational
- Ready for batches to be downloaded

GREEN

- batches to print, ready to start

Sensor

GREEN = "C" SENSOR

- Printer is stopped, - light is on, - sensor is setting over a web sensor mark
- Flashing light while the printer is running, - the sensor is in-line with the registration HOLES

ORANGE = REFLECTIVE SENSOR

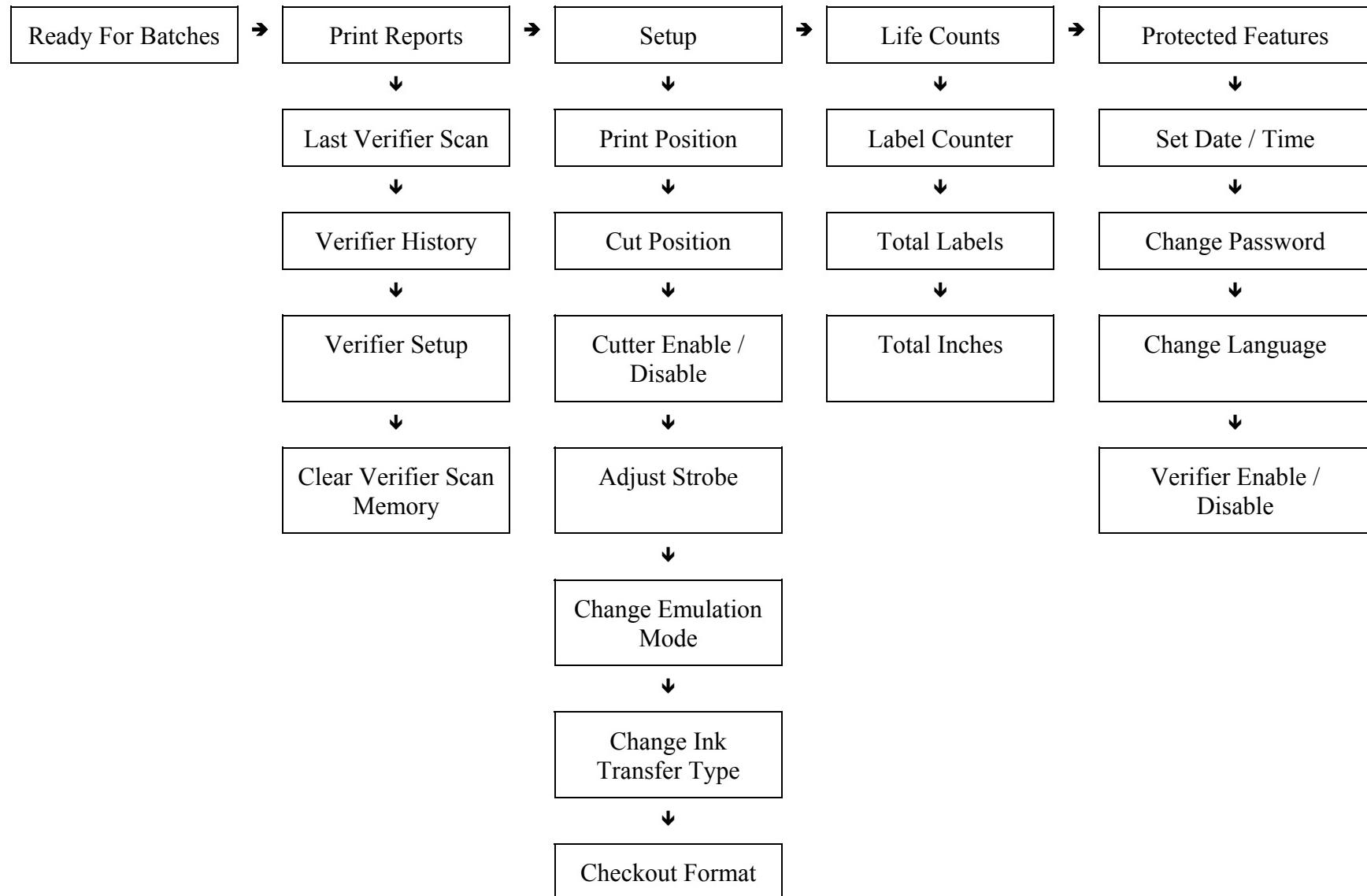
- Flashing light while the printer is running, - the sensor is in-line with the registration PRINTED MARKS

Error

ORANGE

- System inter-lock triggered, display for error.

Front Panel Menu Functions



LCD Display

The LCD display is a 2 line, 24 character, with back lighting feature for easy readability. The first line of the display in most cases will be a prompt or question. the second line is the response.

Diagnostic Tests

During power up the following tests and screens will be displayed.

ENGLISH ONLY VXX.XX
DIAGNOSTIC TEST 1

This screen is displayed during the **Control Panel** test.

This screen will be displayed while the Front Panel is initializing and waiting for the TCB response. The top line will display the FRONT PANEL code version and the machine language (ENGLISH, GERMAN, SPANISH ETC). For example if German were the second language installed the screen would look as follows:

GERMAN / ENGLISH VXX.XX
DIAGNOSTIC TEST 1

The code will check the functionality of the LED's and the display. Each state of the LED's will be checked - (red, green, amber and off). The code will check the LCD display by writing a character to the display, checking for communications and then reading the character back and comparing with the code. If an error occurs, the code will halt the diagnostic test and blink the ERROR LED.

The keypad is also checked during DIAGNOSTIC TEST 1. Each key is tested to see if it is stuck on. If a fault condition is detected, the test is halted and the screen will display the first error key found with the following display:

(BUTTON NAME) KEY STUCK
DIAGNOSTIC TEST 1

The (BUTTON NAME) will be one of the push button names on the front panel - START, FEED, TEST, STOP, EXIT, MODE, <YES, NO>, OR ENTER.

When the code has finished the above tests, the code will attempt to communicate with the Control Board (TCB). If all tests are complete and no errors detected, then the system will go to DIAGNOSTIC TEST 2 and display the TCB code version.

CONTROLLER VXX . XX
DIAGNOSTIC TEST 2

This screen should be displayed once the TCB has requested signon from the Front Panel and the system is waiting for the AT to complete its initialization.

HOME SCREEN

READY FOR BATCHES

IMAGER VXX . XX

OR

BATCH ID	QTY
PCL001	000000010

When the printer is powered up and all initializations are complete, and if there are no Batches to print, the HOME screen will be "READY FOR BATCHES" and the A.T. code version number (IMAGER VXX.XX) will be displayed.

When at the "READY FOR BATCHES" screen, and the HOST is mapping, the screen will display :

BUILDING IMAGE

IMAGER VXX . XX

When at the "READY FOR BATCHES" screen and there are no batches and the "ENTER" key is held down the screen will display the last batch printed (if any).

LAST BATCH WAS XXXXXXXX

IMAGER VXX . XX

When there are Batches to be printed the HOME screen will be "BATCH ID QTY" screen, the Batch ID / Batch Qty screen will display the currently cutting batch ID and labels left to cut.

If the printer is performing a FEED or a TEST pattern this screen will show "FEEDING" or "PRINTING TEST PATTERN" respectively on line two.

PAXAR 656/240

IMAGER VXX . XX

This is the MACHINE ID screen. This screen shows the machine model - (656 or 636) and the print head type - (240DPI or 300 DPI). This screen will momentarily appear whenever the EXIT / Up arrow is pressed, and there are batches to be printed.

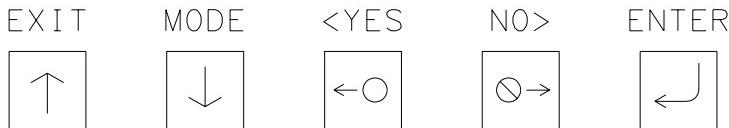
After this momentary display, the "HOME" screen is again displayed.

Pressing the MODE / Down Arrow key will take the user to the next screen.

Pressing the EXIT / Up Arrow key will take the user back to the HOME screen.

Display Modes

There are four (4) main mode levels which are selected and modified using the following function keys:



Use the MODE ↓ key to move through the main mode screens shown below:

PRESS ENTER FOR
PRINT REPORTS

PRESS ENTER FOR
SETUP

PRESS ENTER FOR
LIFE COUNTS

PRESS ENTER FOR
PROTECTED FEATURES

Use the EXIT ↑ to move to the HOME screens.

Print Report Mode

Use the Mode ↓ key to move to the following screen.

PRESS ENTER FOR
PRINT REPORTS

Use the Enter ↴ key to enter this mode.

PRESS ENTER TO
PRINT LAST VERIFIER SCAN

This is the first screen under Reporting features. This screen will appear if a verifier is connected to the printer. This screen allows the user to print the last scan report.

Prints the failure cause for the last bad barcode scan.

**PRESS ENTER TO
PRINT VERIFIER HISTORY**

This screen follows the PRINT LAST VERIFIER SCAN screen if a verifier is connected to the printer. This screen allows the user to print history report of the scanner reads.

Prints a report of the history of barcode scan quality.

**PRESS ENTER TO
PRINT VERIFIER SETUP**

This screen follows the PRINT VERIFIER HISTORY REPORT screen if a verifier is connected to the printer. This screen allows the user to print a verifier report containing verifier setup information.

Prints a report of all verifier current settings.

**ENTER TO CLEAR
VERIFIER SCAN MEMORY**

This screen follows the BARCODE VERIFIER ON screen if there is a verifier connected to the printer. This screen allows the user to clear the scan history memory in the verifier.

Pressing ENTER clears the verifier scan history.

Pressing the MODE ↓ key will take the user to the Strobe adjust screen.

Pressing the EXIT ↑ key will take the user back to the HOME screen.

Setup Mode

Use the Mode ↓ key to move to the following screen.

**PRESS ENTER FOR
SETUP**

Use the Enter ↴ key to enter this mode.

**CHANGE PRINT
PRINT: 0 NEW PRINT: + 2**

For 300 and 240 dpi machines = .016" increments.

Use the <YES key to decrease the number and the > NO key to increase the number.

Adjustment from - 9 to + 10. Zero is the middle of the range

Use the Enter ↴ key to save the new value

Use the Mode ↓ key to move to the following screen.

CHANGE THE CUT

CUT: 0 NEW CUT: -2

Each increment for 300 dpi machine = .026"

Each increment for 240 dpi machine = .025"

Use the <YES key to decrease the number and the > NO key to increase the number.

Adjustment from - 9 to + 10. Zero is the middle of the range

Use the Enter ↲ key to save the new value

CUTTER IS DISABLED

PRESS ENTER TO ENABLE

This screen allows the operator to turn the cutter ON or OFF.

Press the Enter ↲ key, this will toggle between the enable / disable mode.

The screen will display the cutter status on the first line.

The knife motor will continue to run. If the printer is used in the rewind mode only, the knife motor plug may be disconnected.

CHANGE STROBE

STROBE: 0 NEW STROBE: +2

0 = Recommended center position, adjustable to ± 7 settings.

Use the <YES key to decrease the number and the > NO key to increase the number.

Use the Enter ↲ key to save the value and move to the next number.

Recommend cleaning the head, adjusting head tangent and setting head pressure before changing this strobe setting.

EMULATION MODE:630

NEW EMULATION MODE:650

This screen follows the STROBE ADJUST screen. This screen allows the selection of an emulation mode. The 656 / 636 is capable of emulating other PAXAR printers. When in this mode, the 656 / 636 will produce PCL tags as close as possible to the tags produced by the printer being emulated. Formats designed for the 656 / 636 can not be printed on the older printers, but formats designed for the older printers emulated by the 656 / 636 can be printed on the 656 / 636 printer.

Compatibility Notes:

- If the dpi of the 656 / 636 printer does not match the emulating printers dpi, then certain field types such as barcodes, logos, care symbols will not be the exact size of the fields printed on the older printer.

- The 650 printer is center justified, meaning the web is centered under the printhead. The 656 / 636 is a back justified printer, meaning the web is to the back of the printer. This will not cause a discrepancy unless the web of the stock does not match the web defined in the format.
- The verifier will be setup to a specific setting when a verifier is present. The verifier can be disabled from the front panel.

The <YES / >NO buttons are used to change the emulation.

Pressing ENTER will change the current emulator mode to the new emulator mode.

Pressing the MODE/Down Arrow key will take the user to the next screen.

Pressing the EXIT/Up Arrow key will take the user back to the HOME screen.

TRANSFER TYPE:052

NEW TRANSFER TYPE:000

This screen follows the EMULATION MODE screen. This screen allows the selection of a ink and stock TRANSFER TYPE. See appendix C for details of ink and stock combinations.

The <YES / >NO buttons are used to increment or decrement each digit. Pressing ENTER will advance to the next digit. After changing the last digit, pressing ENTER will change the current transfer type to the new transfer type. Enter all three digits - including the leading zero.

Pressing the MODE/Down Arrow key will take the user to the next screen.

Pressing the EXIT/Up Arrow key will take the user back to the HOME screen.

PRESS ENTER TO

PRINT CHECKOUT FORMAT

This screen follows the TRANSFER TYPE screen. This screen allows the printing of a checkout format.

Pressing ENTER will print the checkout format.

Pressing the MODE/Down Arrow key will take the user to the next screen.

Pressing the EXIT/Up Arrow key will take the user back to the HOME screen.

Life Counters Mode

Use the Mode ↓ key to move to the following screen.

PRESS ENTER FOR

LIFE COUNTS

Use the Enter ↴ key to enter this mode.

Use the Mode ↓ key to move to the following screens.

LABEL COUNTER:0000000000

ENTER TO RESET

Used to count labels for a work period (example, a shift)

Enter will reset the count to "0".

TOTAL LABELS PRODUCED

0000000000

Non resettable counter.

TOTAL STOCK INCHES

0000000000

Non resettable counter.

Use the EXIT ↑ to move to the HOME screens.

Protected Mode

Use the Mode ↓ key to move to the following screen.

PRESS ENTER FOR

PROTECTED FEATURES

Use the Enter ↴ key to enter this mode.

ENTER PASSWRD (4 DIGITS)

PASSWORD 0

The Protected Feature screen will appear as shown.

Use the <YES key to decrease the number and the > NO key to increase the number.

Use the Enter ↴ key to save the value and move to the next number.

The password is (4) numbers.

If an incorrect password is entered, the screen will display

INVALID, PRESS ENTER

PASSWORD XXXX

If password is correct, the Mode ↓ key will go to the next screen.

CHANGE DATE/TIME

01/04/95 08:55 AM

Use the < YES / >NO buttons to increment through numbers.

All 10 digits can be changed and also the A will toggle between A and P. The date is always in the MONTH / DAY / YEAR format and the time is always in the 12 hr AM / PM format.

Use enter to move to the next digit or to the AM / PM field.

Use the Mode ↓ key to save new time and date and move to the next screen.

CHANGE PASSWORD (4 DIGITS)

NEW WORD 0

Use the < YES / >NO buttons to increment through numbers.

Use enter to move to the next digit.

Final enter saves new password.

PRESS ENTER

FOR 2ND LANGUAGE

Use Enter ← to toggle between ENGLISH and 2ND LANGUAGE.

Note: Pressing the TEST button and the MODE button at the same time will toggle the second language from any screen.

OR

If no second language available the screen will display as follows:

NO 2ND LANGUAGE

AVAILABLE

Use the Mode ↓ key to move to the following screen.

VERIFIER IS ENABLED

PRESS ENTER TO DISABLE

Use Enter ← to toggle between ENABLED and DISABLE for the verifier.

Use the EXIT ↑ to move to the HOME screens.

Maintenance / Adjustments

Print Head Handling

Warning

Print heads can be damaged easily, and are subject to premature failure if not cleaned on a regular basis. Please follow the procedures carefully to help ensure print head life and print quality.

Thermal print heads are very sensitive and must be handled with care to help ensure longer print head life. Because print heads may be damaged through a number of ways, Paxar has developed the following procedures;

Handling

Static discharge is very detrimental to thermal print heads. To avoid contacting print heads with a static charge, follow these simple procedures:

- All print heads should be kept in original anti-static bags until they are placed in the machine.
- The 656 / 636 printer is supplied with an anti-static wrist strap. Locate the strap - it must be worn at all times when handling the print heads.
- Do not touch any terminals extending from the print head or the print line.
- Anti-static gloves are provided with your machine upon installation and extras may be ordered from Paxar. These gloves must be worn at all times when handling the print head. If an anti-static glove is not available, make absolutely certain to thoroughly wash and dry your hands before handling the print head. Oils from your hands can contaminate the print line and quickly destroy the printing elements.

Print Head Cleaning

CAUTION: TURN OFF THE POWER TO THE PRINTER BEFORE STARTING ANY CLEANING.

NEVER REMOVE THE HEAD FROM THE PRINTER EXCEPT FOR REPLACEMENT.

The Anti-static wrist strap (which must contact the skin and be tight) and anti-static gloves must be worn at all times when handling a print head to avoid damaging the print head.

Supplies:

- Always use clean supplies when cleaning the head.
- Never use anything abrasive to the head.
- NEVER use anything metallic on or near the printhead.
- Alcohol and a cotton swab are the recommended items to use when cleaning the printhead.

RECOMMEND PAXAR "MASTER CLEANING KIT" # 921338

Procedure:

- The Printhead should be cleaned every two to four hours of continuous usage. A good cleaning of the print head after eight to twelve hours of continuous usage should be done. This cleaning must be done with the print head in the printer.
- Apply a liberal amount of alcohol to a swab.
- Rub the swab across the print line of the printhead to remove the build-up.
- The platen roller and feed rollers should also be cleaned with alcohol to remove ink and card dust build-up.

Print Head Replacement

NEVER REMOVE THE PRINT HEAD FROM THE PRINTER EXCEPT FOR REPLACEMENT.

TURN OFF THE POWER TO THE PRINTER BEFORE STARTING ANY ELECTRONIC COMPONENT REPLACEMENT.

NOTE: The Anti-static wrist strap (which must contact the skin and be tight) and anti-static gloves must be worn at all times when handling a print head to avoid damaging the print head.

- 1) Review the Printhead Handling Procedure Sheet packaged with each print head to determine if any procedures have changed before beginning this procedure.
 - 2) Remove the ink from the machine for easy print head removal.
 - 3) Unplug the ribbon cable that runs to the print head. Unplug the cable by firmly, but gently pulling it out.
 - 4) Back the print head pressure screws off counterclockwise as far as possible.
 - 5) Place your hand (with static gloves on) underneath the print line of the print head and push up to release the locator pins on the heat sink, while pulling the print head to the right of the machine. This will remove the print head assembly from the mount plate. You may need to "help" the print head out by pushing on the heat sink with your left hand.
 - 6) Remove the two print head mount screws located on the top of the print head with a 2.5mm ball driver.
 - 7) Remove the old printhead carefully from the heat sink.
 - 8) Place the new print head into the heat sink. Check to see that the new printhead sits square in the heat sink and that there is no end play. If there is end play, or the head does not seat properly, the heat sink guide will need adjustment.
 - 9) Replace the two print head lock screws. Be sure that the head is resting flat on the heat sink before tightening these screws.
 - 10) Replace the print head assembly in the printer, making sure that the pin at the back of the heat sink goes into the hole in the mount plate. Make sure that the guide pins insert into both the front and back grooves.
 - 11) Reconnect the print head cable, making sure that the connector is seated tightly.
- NOTE:** If the cable is not connected correctly, the print head will be destroyed when the machine is powered on. Check to see that the cable is tight by observing from underneath the print head. The ribbon cable connector should be inside of the black connector located on the print head.
- 12) Replace the ink and double check your work. Power the machine on and make sure that no adverse effects are noted. As a final test of the print head installation, run a test pattern to check the print quality. You should observe an even grid of chevrons. If you do not see such a grid, you may wish to reference the topic of print head tangent adjustment.

Print Head Adjustment

Tangent

Proper print head tangent is perhaps the most important adjustment to make. A printhead which is not properly adjusted will result in poor print quality, poor heat dissipation and possible ink wrinkling problems. When the machine was manufactured, the print head was adjusted to the proper tangent point on the platen roller, however, with print head replacements the tangent point for the new print head may change. It is necessary to understand how to properly adjust the printhead.

Clean Platen Roller

You may determine if the printhead has been adjusted properly by performing a test pattern as documented elsewhere in this manual. A properly adjusted print head will produce an even grid of chevrons when the test pattern is performed. **Before making any judgments as to the quality of the printhead, it is absolutely necessary to ensure that the platen roller and the printhead is clean of all debris.** Clean the platen roller located immediately beneath the print head with a clean cloth and a small amount of alcohol. Be careful not to damage the platen roller while cleaning. If the roller is worn, replace the roller.

Print Head Pressure Setting

The print head pressure setting is very important. Keep the lightest setting possible. This will improve print head life while maintaining quality print.

The printer has been factory set. Further adjustment of pressure adjusting screw should be minimal.

If readjustment is required, proceed as follows: Power on the printer. Remove the ink and card stock from the printer. With the print head open, turn the pressure screw counterclockwise until it does not contact the printhead mount plate, it should slide freely back and forth. Close the print head. Slide the pressure screw until it sits directly over the center of the web. Turn the pressure screw clockwise until it makes contact with the head mount plate plus 1/2 turn to add pressure. As the web width changes adjust the pressure screw accordingly.

Download the proper format for the stock that is loaded. Press start. The print quality should be acceptable if the pressure screw is properly positioned.

Once the print quality is acceptable, start to back off the screw until the print begins to fail. Once the print is starting to fail, increase the pressure by 4 clicks. Minimum pressure should be used when running narrow webs, wide webs require slightly greater pressure. Additional print quality will be obtained by adjustments of the Tangent point, (see Print Head Tangent Point)

If you are unable to correctly adjust the screw for good print, call for service.

Squaring the Print Head

If the test pattern, printed on a wide web (4" (100mm) plus), is lighter on one edge than the other, it is possible that the printhead is out of square. This can be detected by looking at the front edge of the print head in reference to the printhead holder. To remedy this problem, power off the machine and remove the print head as outlined in the print head installation information. The printhead adjustment plate has been manufactured so when properly adjusted the head will be square. The printhead holder has a locator plate that must be slide up snug against the printhead mount plate. Install the head and it should be square to the web.

Print Head Tangent Point

The print head pressure adjustment must be done with the head pressure set light. Turn the pressure screw counterclockwise. Run a test pattern to determine the adjustment required.

If the entire test pattern is broken up, the printhead is probably not adjusted to the proper tangent point. To adjust the tangent point loosen the two print head lock screws one half turn with a 2.5mm ball driver provided in your spare parts kit. Do not remove the print head from the printer.

Once the screws have been loosened, use the adjustment thumb screw to move the head forward and backwards. Since the adjustment is very precise, do not turn the thumb screw more than 1/4 of a turn before running another test pattern to determine if you are adjusting the print head in the proper direction. Tighten the two mount screws (**Do not over tighten**). Run a test pattern again to determine further adjustment required.

Once you have restored a smooth even test pattern, re-tighten the two print head mount screws (**Do not over tighten**) and run one last test pattern.

Registration Sensor Adjustment

Adjusting Print Sensor Position

If you are running sense mark material with a hole or slot for registration:

- Open the feed roller and print head.
- Move the stock by hand in the feed direction until the registration desired is in the slot window for the pickup sensor.
- Close both the feed and print head.
- Slide the top sensor assembly using the sensor handle while looking at the registration index sensor. When the light turns on, and stays on, the sensor is over the registration hole.

If your machine stops, for no apparent reason, while it is in the middle of printing a batch of tickets, you may be missing sense marks (three consecutive tickets in which a sense mark was not found). Check for the following:

- The front panel will display a screen indicating that there has been a missed sensor error.

- Check that the front web guides have been positioned properly - both on the supply roll and in front of the print roller.
- Check that the feed roller pressure has been set equally across the roller.
- Check to see that the print head pressure has been set properly.
- Repeat the sensor alignment procedure.

Cleaning Print Sensor

When print registration, in reference to sense mark, becomes inconsistent or erratic the Sensor and Light Bar may need to be cleaned.

Supplies:

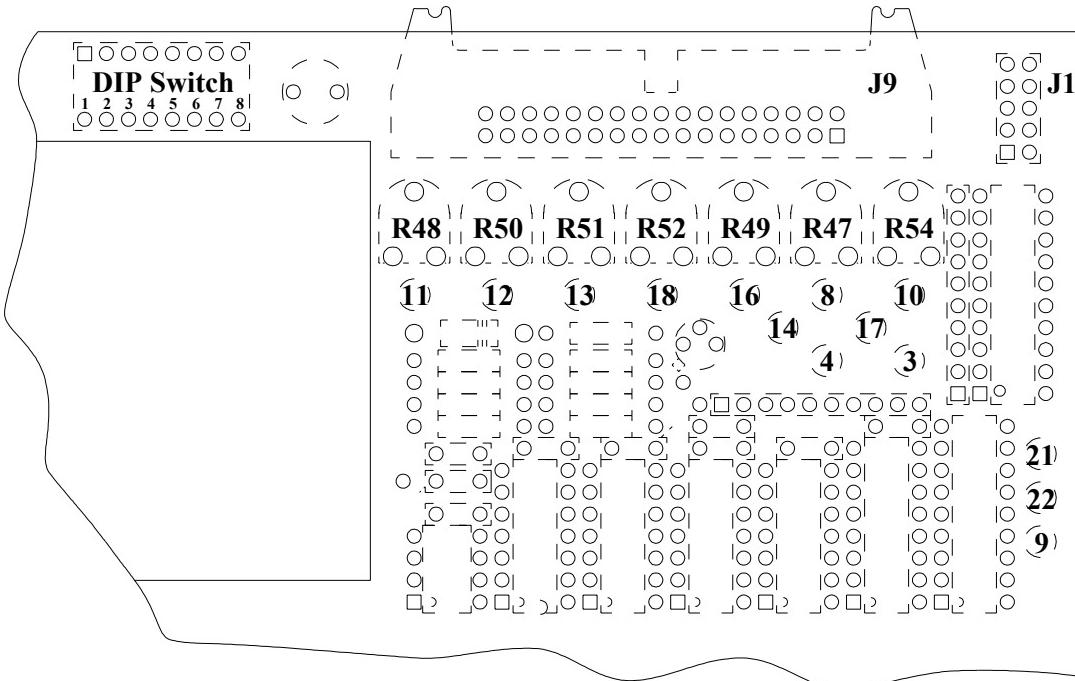
- Always use clean supplies when cleaning the sensor and light bar.
- Never use anything abrasive to the sensor and light bar.
- NEVER use an alcohol based solution when cleaning the sensor or light bar.
- Dry air or a cotton swab are the PAXAR recommended items to use when cleaning the sensor and light bar.

Sensor Trim Pots

Your 656 / 636 printer is equipped with several sensors used to detect the status of the printer and its supplies. While these sensors are calibrated at the time your printer is manufactured, there may be times when re-calibration is required. Re calibration times are indicated in the troubleshooting section.

The following guidelines indicate the proper procedure used to calibrate the sensors. A voltmeter is highly recommended for this procedure, however the Bank of Lights will provide an estimation of sensor performance until peak performance can be achieved with a voltmeter.

Suggestion: clean all optical sensors prior to adjustment as dust and debris will adversely effect their performance.



Thermal Controller Board as viewed from back of printer

NOTICE:

All test point voltage measurements including sensor adjustments should be made on the DC scale with the black lead of the meter connected to the **ground test point 22**. Care should be taken to ensure that meter leads do not short against unintentional test points throughout the measurement procedures.

Hole / Slot Index Registration Sensor

	Sensor Blocked	Sensor Not Blocked
Test Point:	TP13	TP13
Adjustment Pot	R51	R51
#3 Light Status:	On	Off
Desired Voltage:	> 3.50 VDC	< 0.75 VDC

The Hole / Slot Registration Sensor in conjunction with the light bar allows the printer to register to preprinted media. The low level is the more crucial of the two adjustments. Note that the same pot is used for both adjustments and a compromise value must be achieved. Begin by removing the stock from the sensor path. Measure the low voltage throughout the mechanical travel of the sensor by sliding it inboard and outboard. The voltage at all points should not vary more than 0.75VDC. If it does the sensor slide bar and or the light bar must be mechanically aligned (see Hole / Slot Index Registration Sensor Mechanical Adjustment below). Once this is achieved find the web location where the low voltage is the highest and adjust the pot until the reading is 0.75VDC or less. Now block the sensor path with the media you intend to run. The high level should be greater than 3.5VDC at all points of the sensor's travel.

Hole / Slot Index Registration Sensor Mechanical Adjustment:

There are two areas that can be adjusted to correct the voltage readings. The upper sensor square bar may be loosened from the back of the printer and rotated. The second adjustment is to loosen the light bar mount screws and move the bar in the web direction. When the light bar screws are retightened be careful not to over tighten and brake the light bar PC board.

Reflective Index Registration Sensor

	Sensor on Plain Stock; Not on Mark	Sensor Directly on Mark
Test Point:	TP8	TP8
Adjustment Pot	R47	R47
#4 Light Status:	On	Off
Desired Voltage:	> 3.50 VDC	< 0.75 VDC

The Optional Reflective Registration Sensor, if installed, allows the printer to register to preprinted media by detecting a black mark. Begin by placing the stock so that the black mark is not in the sensor's sight path and adjust the pot until the high value is achieved. Then place the stock so that the black mark is directly in front of the sensor's sight path and adjust until the low level is met. The low level is the more crucial of the two adjustments.

NOTE: The same pot is used for both adjustments and a compromise value must be achieved.

Film Out Sensor / Top Ink Sensor

	Sensor Blocked	Sensor Not Blocked
Test Point:	TP12	TP12
Adjustment Pot	R50	R50
#1 Light Status:	On	Off
Desired Voltage:	> 3.50 VDC	< 0.75 VDC

The Film Out Sensor allows the printer to monitor the availability of ink. Begin by blocking the sensor with the ink intended for use and adjust the pot until the high value is achieved. Then remove the ink from the sensor and adjust until the low level is met. The low level is the more crucial of the two adjustments.

NOTE: The same pot is used for both adjustments and a compromise value must be achieved.

Bottom Ink Sensor

	Sensor Blocked	Sensor Not Blocked
Test Point:	TP16	TP16
Adjustment Pot	R49	R49
#2 Light Status:	On	Off
Desired Voltage:	> 3.50 VDC	< 0.75 VDC

The Bottom Ink Sensor is not available at this time and is reserved for future expansion.

Headlift Sensor

	Sensor Blocked	Sensor Not Blocked
Test Point:	TP18	TP18
Adjustment Pot	R52	R52
#7 Light Status:	On	Off
Desired Voltage:	> 3.50 VDC	< 0.75 VDC

The Headlift Sensor allows the printer to register the platen roller on 656 printers. Begin by rotating the platen roller until the flag is blocking the sensor. The platen roller has been slotted to accept a regular screwdriver on the front of the machine to assist in this operation. Adjust the pot until the high value is achieved. Then rotate the platen roller until the flag is no longer blocking the sensor. Adjust the pot until the low level is met. The low level is the more crucial of the two adjustments.

NOTE: The same pot is used for both adjustments and a compromise value must be achieved.

Full Stacker Sensor - Jam Sensor

	Sensor Blocked	Sensor Not Blocked
Test Point:	TP11	TP11
Adjustment Pot	R48	R48
#6 Light Status:	On	Off
Desired Voltage:	> 3.50 VDC	< 0.75 VDC

The Full Stacker Sensor allows the printer to detect a full load of labels in the stacker. The stack full condition will be detected by a switch and will stop the machine when the stacker is full. The Jam Sensor feature will detect each cut label as it leaves the cutter. If a cut fails to occur, the machine will stop. To adjust the jam sensor, block the sensor and adjust the pot until the high value is achieved. Remove the block from the sensor and adjust the pot until the low level is met. The low level is the more crucial of the two adjustments.

NOTE: The same pot is used for both adjustments and a compromise value must be achieved.

Stock out Adjustment

The stock out sensor has been set at the factory, however for some stocks it may be necessary to adjust the sensor to detect stock out. With a full roll of stock loaded in the machine, run the printer and observe how far behind the stock (to the left of the stock) the stock out wire rod is located. This should be between 1/4 and 1/2 inch (6 to 12mm) behind the running stock. If not, loosen the set screw and rotate the wire to the acceptable distance and re tighten.

Knife Square Adjustment

The knife has an adjustment to square the cut to the stock. To make the adjustment, loosen the two cap screws, one on top of the knife and one below the knife, using the 3/16 ball driver in the tool kit. Move the knife in the direction desired to square the cut and re tighten.

Stacker Adjustments

The stacker has four adjustments which can be made without a tool to accommodate different types of stocks.

Stock Length Adjustment

Loosen the two thumb screws at the base of the stacker uprights and slide the uprights to a position that allows the cut tag or label to hang over the last belt roller approximately 1/4" (6mm). Re tighten.

Stock Width Adjustment

Loosen the two thumb screws behind the stacker uprights and adjust the stacker upright nearest to the operator to the desired stock width position. Re tighten.

Stacker Angle Adjustment

Loosen the lever located on the side of the stacker assemble nearest the operator and adjust the angle of the stacker with a few cut labels in the stacker so that there is a slight gap under the last label as it hangs over the last belt drive roller. Re tighten.

Stacker Full Adjustment

The sensor on the inboard stack up right is used to stop the printer when the stack is full. A thumb screw adjustment is provided to set the stack height. **Warning, some stock materials can not be stacked to the full height of the stacker because of excessive weight.**

Stock Feed Adjustment

When changing stock type, the stock feed should be readjusted. This is important to reduce any slip for too light an adjustment and reduce excessive roller wear for too tight an adjustment. To adjust, loosen the two top set screws using the 5/64 Allen key in the kit. With the new stock in the drive roller, fully close the stock feed lever (rotate fully counter-clockwise). Tighten both set screws until there is slight pressure on the stock. Run the one inch pull format and adjust the set screws an equal amount based on the results. If the one inch label measures less than one inch, tighten (clockwise) each screw slightly and repeat the measurement. If the one inch label exceeds one inch, loosen (counter-clockwise) the tension on both set screws equally. As a final check for stock feed balance between in board and outboard, the inboard edge of the stock should be 31/32" (24.6mm) from the main vertical support plate of the printer. To move the stock inboard, away from the operator, loosen the inboard set screw slightly. This can be done while running the unit. To move the stock outboard, toward the operator, loosen the outboard set screw slightly.

Mechanical Adjustment Of Feed Roller Pressure (Blue Roller)

General

The blue rubber pressure roller is supported by an eccentric shaft mounted in bearings located in vertical slots in the front and rear mounting plates of the drive module. These bearings are supported by compression springs and controlled by set screws located in the top of the bearing mounts.

Adjustment Procedure:

- 1) Release eccentric control lever and remove stock.
- 2) Using a piece of the same stock being run as a "feeler" gauge, adjust set-screws until "feeler" gauge just slides between rollers evenly across width of rollers with pressure eccentric lever closed.
- 3) Release pressure and rethread. Further equally adjust set-screws (2) clockwise 1/2 - 3/4 of a turn. Close pressure lever.
- 4) Operate machine. Minor adjustments can now be made to the set-screws to cause stock to run 31/32" (24.6mm) from upright frame.

Mechanical Adjustment of Stock Sense - Mark Light Receiver

General

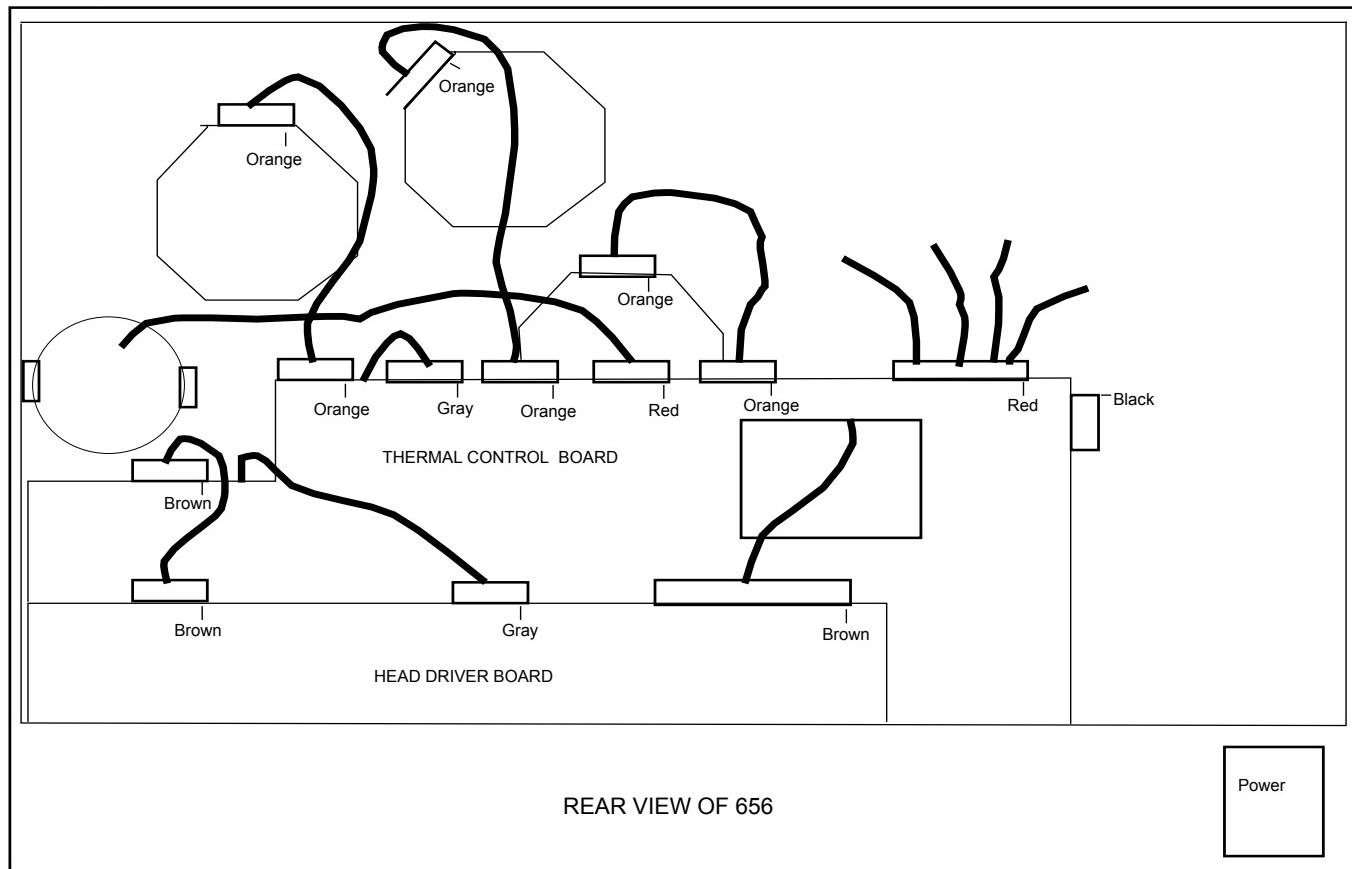
The receiver for light from the LED emissions bar for stock registration is mounted on a square shaft directly above the web guide plate assembly, just prior to the print module. Although this bar is factory adjusted prior to shipment, it may be necessary to readjust the bar to assure proper light reception.

Adjustment Procedure:

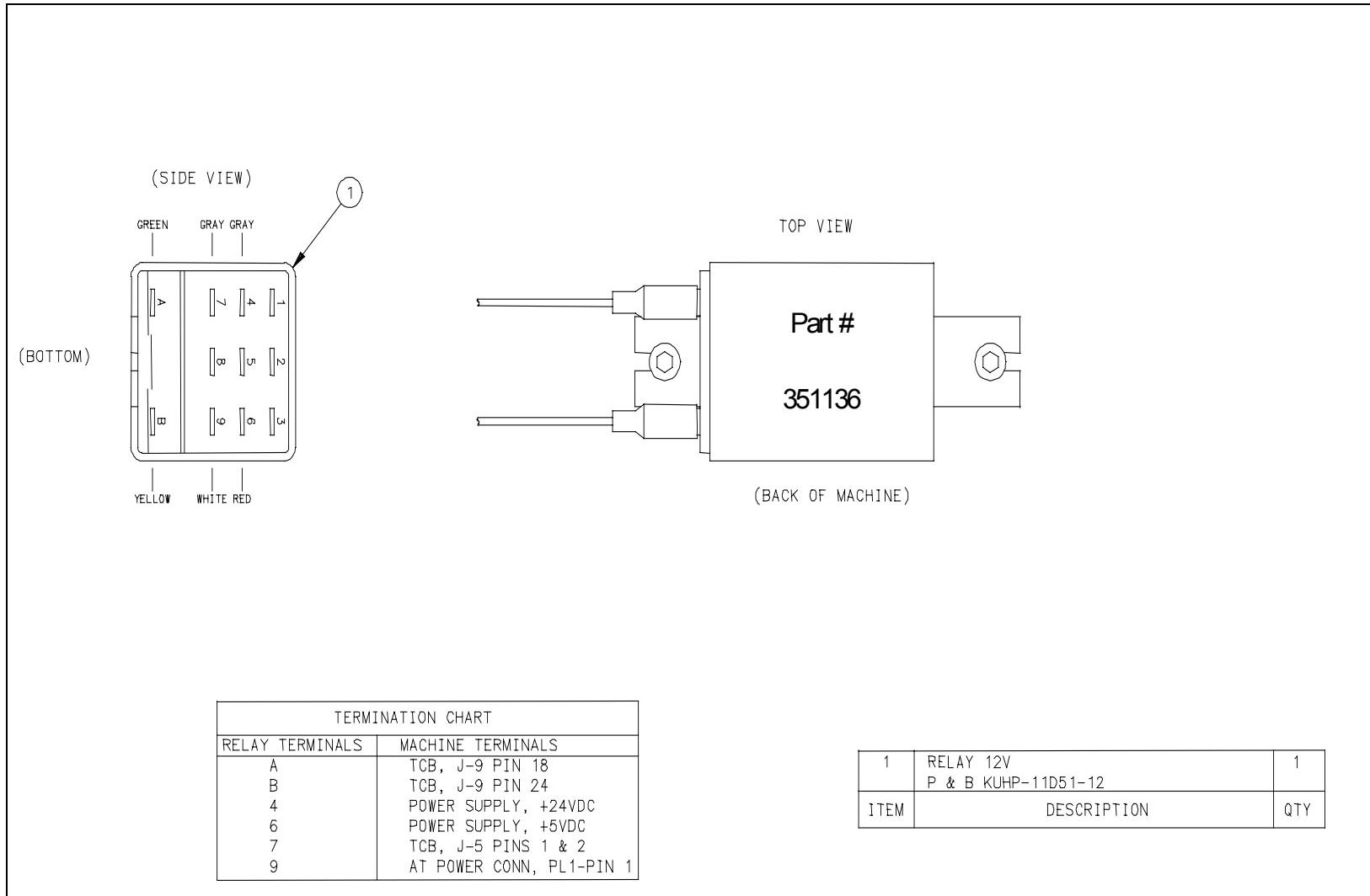
- 1) Remove machine rear cover.
- 2) Slide receiver block to the rear of the square bar.
- 3) Thread pre punched stock through web guide and adjust outer guide to lightly touch outer edge of stock.
- 4) Move stock until pre punched hole is visible in slot above LED bar.
- 5) Slide receiver block out until it is located approximately over the hole. (accurate adjustment forward and back can be accomplished when printer is electrically activated.)

Electrical Connections

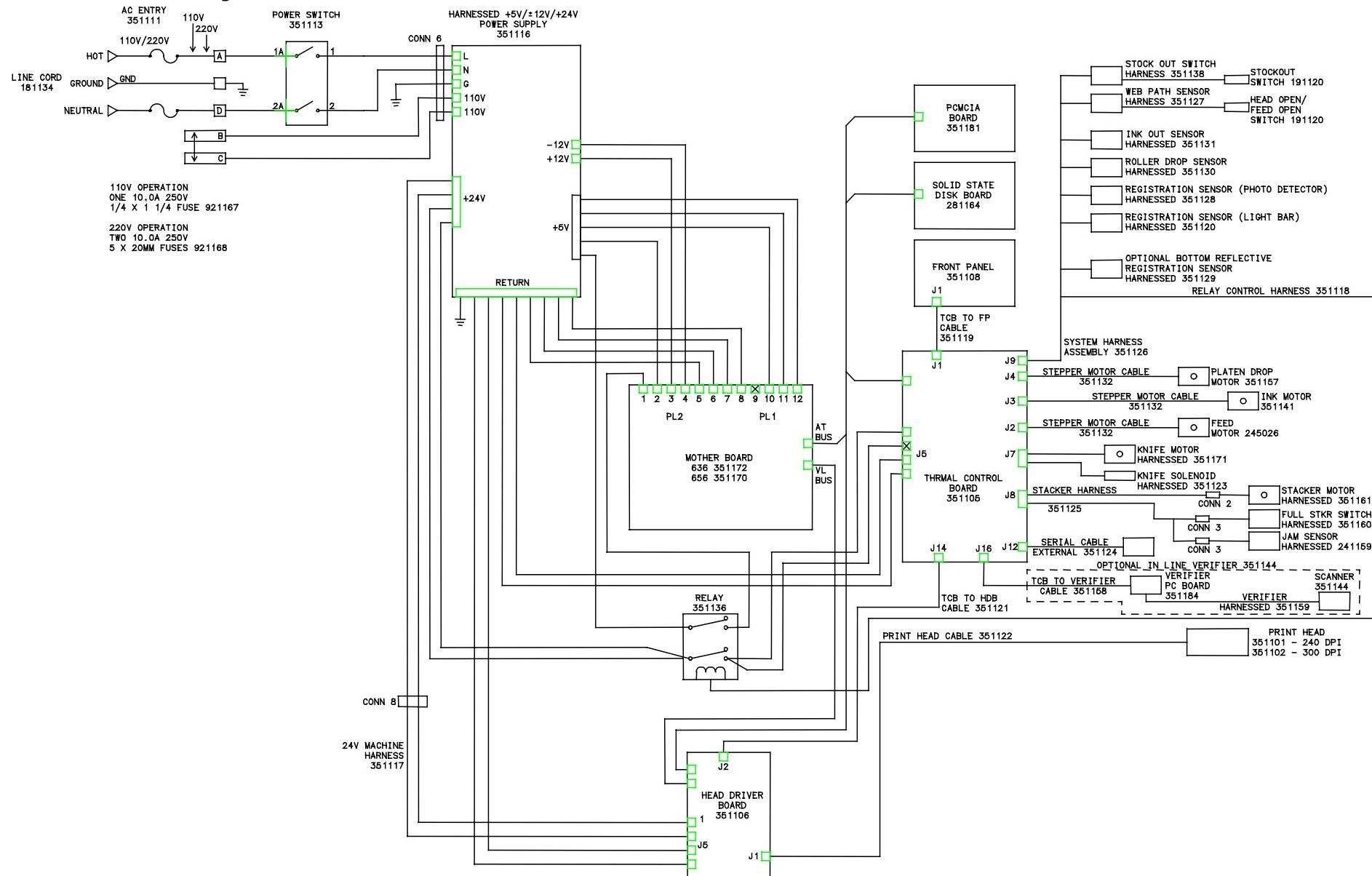
Machine Wiring



Relay Assembly



Electrical System Schematic

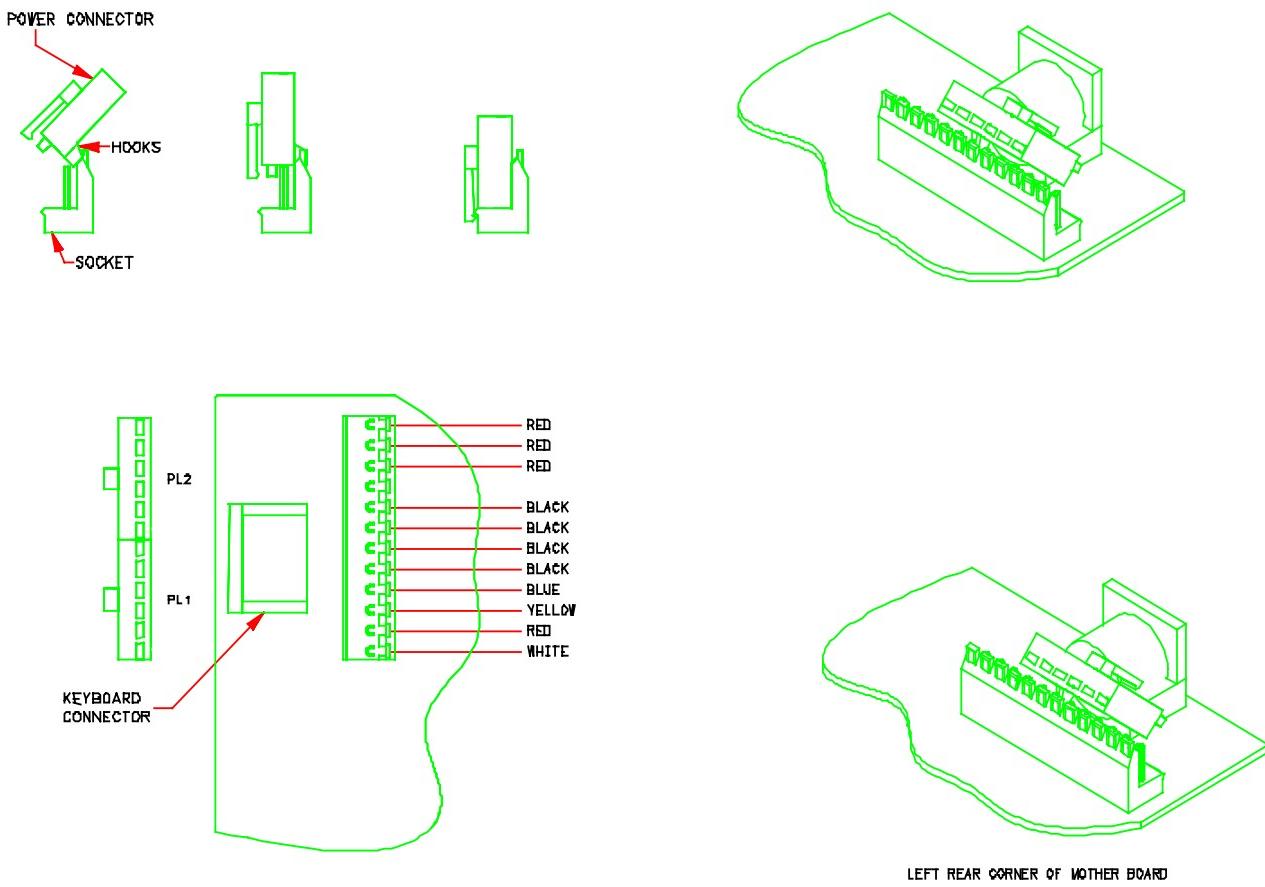


Motherboard Power Connectors

The power supply connector on any PC / XT or PC / AT compatible motherboard is made up of dual six-pin male connectors. Two female connectors from the power supply plug directly onto these male connectors. The following diagrams illustrates the proper method of attaching the connectors.

Ensure that all of the black wires are located next to each other in the center of the two connectors (as shown in the diagram below), and that the clamps on the back side of the connectors are secured along the PCB header. All pins should be covered.

Warning: Connecting the power supply incorrectly may cause irreversible (unwarranted) damage! Ensure that the power is turned off before connecting the power supply. Make certain that the 115 / 230VAC fuse drawer is in the correct position.



Electrical Trouble Shooting

Power Up / Sign On / Communications

Problem	Probable Cause	Corrective Action
Machine fails to power up with no light present in the AC power switch.	1) Incorrect power amplitude. 2) Lack of power to machine. 3) Missing or blown fuse(s)	1) Confirm that the AC entry is configured for the line voltage intended to be applied to the machine. Failure to do so can damage the machine's internal power supply. Refer to the "Fuse Configuration". 2) Check that both ends of the power cord are plugged in securely. 2A) Confirm that the outlet the machine is plugged into has power. 3) Check that the fuse(s) located inside the AC entry are present and intact. Replace as needed. Refer to the "Fuse Configuration".
Machine fails to power up with light present in the AC power switch.	1) Unconnected cable / connector inside machine. 2) Thermal Control Board unplugged from the Mother Board	1) Power off and remove the power cord from the AC entry. Remove the back cover and inspect the cables and connectors to and from the power supply. Refer to the "Electrical System Schematic". 2) Power off and remove the power cord from the AC entry. Remove the back cover and reseat the Thermal Control Board.
Front panel displays no text or nothing at all.	1) Front panel cable unplugged.	1) Power off and remove the power cord from the AC entry. Remove the back cover and inspect the cable and connectors to and from the front panel. Refer to the "Electrical System Schematic".

Problem	Probable Cause	Corrective Action
Front panel does not complete diagnostics test 2.	1) One or more PC board(s) unplugged from the Mother Board. 2) Relay unplugged or faulty. 3) PCMCIA cartridge not inserted correctly in optional PCMCIA slot.	1) Power off and remove the power cord from the AC entry. Remove the back cover and reseat the offending board. 2) Power off and remove the power cord from the AC entry. Remove the back cover and inspect the cables and connectors to and from the relay. Refer to the "Electrical System Schematic" and "Relay Assembly". 3) Insert a PCMCIA cartridge with the arrow up and towards the front of the machine so that the ejector button pops out.
Machine does not receive batches.	1) Serial communications cable loose or unconnected. 2) Machine not powered on or has not completed diagnostics tests. 3) Data sent to wrong printer. 4) Configuration incorrect in PCMate. 5) Faulty Thermal Control Board. 6) Jumpers not configured correctly.	1) Check and secure both ends of the serial cable with the thumbscrews. 2) Power machine on and wait until machine displays "Ready for batches". Re download data. 3) In PCMate change to the printer the data is intended to be sent. 4) Re configure PCMate for Paxar PCL printer as per your PCMate manual. 5) Replace Thermal Control Board. 6) Contact Paxar Service.

Stock / Ink Advance

Problem	Probable Cause	Corrective Action
Stock does not advance when the start button is depressed.	1) No batches to be printed. 2) An interlock condition exists.	1) Download batch (if batch downloaded uses the same format as a previously downloaded batch the machine will start automatically). 2) Determine the number and type of interlock(s) by reading the front panel display. As each is corrected the number of errors will decrease (Example "Error 910 Stock Out" reload stock).
	3) Feed motor unplugged or faulty.	3) Check feed motor cable and or replace feed motor.
	4) Thermal Control Board unplugged or faulty.	4) Check Thermal Control Board / AT board connection and or replace Thermal Control Board.
	5) Feed roller not gripping stock.	5) Adjust the feed pressure. Refer to "Mechanical Adjustment Of Feed Roller Pressure".
	6) Feed rollers bound.	6) With power off check that all rollers turn freely.
	7) Stock bound.	7) With the print head and feed open check that the stock will pull through the printer with little to no resistance.

Problem	Probable Cause	Corrective Action
Ink does not advance when the start button is depressed.	1) No batches to be printed. 2) An interlock condition exists. 3) Ink motor unplugged or faulty. 4) Thermal Control Board unplugged or faulty. 5) Ink roller bound. 6) Ink bound.	1) Download batch (if batch downloaded uses the same format as a previously downloaded batch the machine will start automatically). 2) Determine the number and type of interlock(s) by reading the front panel display. As each is corrected the number of errors will decrease (Example "Error 910 Stock Out" reload stock). 3) Check ink motor cable and or replace ink motor. 4) Check Thermal Control Board / AT board connection and or replace Thermal Control Board. 5) With power off check that all rollers and arbors turn freely. 6) With the print head open check that the ink will pull through the printer with little to no resistance.

Print

Problem	Probable Cause	Corrective Action
Machine advances stock but does not print.	1) Stock registration sensor miss aligned. 2) Miss adjusted print head position. 3) Miss adjusted print head pressure. 4) Print head cable unconnected or faulty. 5) Print head faulty. 6) Head Driver Board unplugged or faulty.	1) Adjust sensor position so that the sensor light on the front panel flashes as a sense slot or hole passes under the sensor. 2) Set print head position. Refer to "Print Head Tangent Point". 3) Set print head pressure. Refer to "Print Head Pressure Setting". 4) Power off the machine and reinsert the offending connector or replace cable. 5) Replace print head. 6) Check Head Driver Board / AT board connection and or replace Head Driver Board.
Machine stops after ever third label.	1) Stock registration sensor miss aligned. 2) Stock registration sensor uncalibrated.	1) Adjust sensor position so that the sensor light on the front panel flashes as a sense slot or hole passes under the sensor. 2) Using TP13 and R51 on the Thermal Control Board re calibrate the sensor. Refer to "Sensor Trim Pots".
Print registration is off in the feed direction.	1) Feed pressure setting is off. 2) Print position is incorrect. 3) Field(s) position incorrect in the format. 4) Bound platen roller.	1) Set feed pressure. Refer to "Mechanical Adjustment Of Feed Roller Pressure". 2) Enter the setup menu and readjust the print setting as needed. 3) Using formatter check and readjust the field(s) position(s) as needed. 4) Check that the platen roller turns freely on its shaft. If it does not replace it.

Problem	Probable Cause	Corrective Action
Print registration is off in the web direction.	1) Machine incorrectly threaded. 2) Web guides incorrectly adjusted. 3) Unwind incorrectly adjusted. 4) Incorrect DIP switch settings on the Thermal Control Board.	1) Check and rethread the media as needed. Refer to "Loading Stock". 2) Check and adjust as needed. Refer to "Web Guide Adjustment". 3) Check and adjust as needed. Refer to "Web Guide Adjustment". 4) Check and reset DIP switches as needed. Refer to "TCB Dip Switch S2 Settings".
Print contrast is too light or dark.	1) Incorrect strobe setting selected in the format. 2) Incorrect strobe setting in the machine setup. 3) Miss adjusted print head position. 4) Miss adjusted print head pressure.	1) Using Formatter check and adjust the strobe setting according to the media and ink being used. 2) Enter the setup menu and readjust the strobe as needed. 3) Set print head position. Refer to "Print Head Tangent Point". 4) Set print head pressure. Refer to "Print Head Pressure Setting".
Voids in print image in the feed direction.	1) Ink miss aligned with format. 2) Print head dirty. 3) Faulty print head. 4) Miss adjusted print head position. 5) Miss adjusted print head pressure. 6) Worn platen roller.	1) Adjust ink position on the arbors to achieve full ink coverage over all fields on the format. 2) Power off the machine clean the print head and platen. Refer to "Print Head Cleaning". 3) After cleaning head and running the test pattern to confirm that a void still exists, replace the print head. 4) Set print head position. Refer to "Print Head Tangent Point". 5) Set print head pressure. Refer to "Print Head Pressure Setting". 6) Replace platen roller.
Machine continually stops with an erroneous interlock condition.	1) Sensor uncalibrated. 2) Sensor position miss adjusted. 3) Ink sensor type (light / dark) incorrect in the format for the ink type being used.	1) Determine which sensor and re-calibrate as needed. Refer to "Sensor Trim Pots". 2) Determine which sensor and relocate accordingly. 3) Either change the ink or the ink type in the format.

Cut / Stack

Problem	Probable Cause	Corrective Action
Machine fails to cut labels (the rotary knife does not rotate).	1) The cut is disabled in the setup menu. 2) Knife cable unconnected. 3) Knife jammed causing auto resetting fuse to trip on the Thermal Control Board. 4) Faulty knife motor. 5) Faulty knife motor drive circuit on the Thermal Control Board.	1) Enable the knife in the setup menu via the front panel.. 2) Power off and remove the power cord from the AC entry. Remove the back cover and inspect the cable and connector to the knife module. Refer to the "Electrical System Schematic". 3) Remove cause of jam at the knife. 4) Replace the knife motor. 5) Replace the Thermal Control Board.
The stacker fails to run.	1) The stacker cable is unconnected. 2) Faulty stacker motor. 3) Stacker jammed causing auto resetting fuse to trip on the Thermal Control Board. 3) Faulty stacker motor drive circuit on the Thermal Control Board.	1) Power off and insert the stacker cable in the stacker port on the Thermal Control Board. 2) Replace the stacker motor. 3) Remove cause of jam at the stacker. 3) Replace the Thermal Control Board.

Electrical Trouble Shooting / Machine Set Up Sequence

If the printer is mechanically operable, proceed as follows:

- 1) Power off the printer, remove the media and ink and thoroughly clean it from the unwind to the stacker using alcohol and a clean soft cloth. The print head should be cleaned as per the Print Head Cleaning instructions section in the manual.
- 2) Load a full roll of an average width media and ink on the printer.
- 3) Power on the printer. After passing diagnostics test one and two the front panel will display READY FOR BATCHES.
- 4) Arrow down to the setup mode and press enter. Set the print, cut, and strobe to 0.
- 5) From the host PC download a batch of 1000 labels using the 6X6 setup format 92.
- 6) Adjust as needed the print head position and then pressure for optimum print quality. Refer to the Print Head Adjustment section in the manual. If the machine will not pull stock for this step refer to step number seven.
- 7) Adjust the feed pressure to pull 11.0" +- .032" of media. Refer to the Stock Feed Adjustment section in the manual. After the machine is pulling the correct amount of media, measure the distance between the top of the media and the tracking line. This distance must be .5" +- .032" through out the label. If it is not, first check and adjust as needed the unwind core guide, and the web guide, then if needed adjust the feed pressure from side to side until it is. Re-verify that the label is 11.0" in length. If the print quality is inadequate refer back to step number six.
- 8) Using two consecutive labels back to back check the squareness of the cut. Adjust the knife module as needed referring to the Knife Square Adjustment section in the manual.
- 9) Using the front panel adjust the physical cut to be 1.0" +- .032" from the cut line on the label. The machine is now ready for production formats at which time the operator should need only to adjust the print, cut, and strobe via the front panel.

NOTE: If the machine is used to print on multiple media types the print head may need to be adjusted for optimum print quality on each media as they are ran.

Mechanical Trouble Shooting

Stock

Problem	Probable Cause	Corrective Action
Stock will not roll or jumps	1) Incorrect adjustment of unwind web guides	1) Be sure stock roll is as flat as possible and does not extend over core. 2) Adjust rear web guide to 31/32" (24.6mm) from case surface to guide surface touching roll. 3) Adjust outer web guide to touch stock roll but not pinch the roll.
Machine fails to stop at end of roll.	1) Incorrect adjustment of stock-out switch trigger arm.	1) Adjust stock-out switch arm to approximately 3/4" (19mm) from back side of stock when threaded through machine.
Stock does not pull smoothly through printhead module.	1) Web guide in sensor plate incorrectly adjusted. 2) Stock is slipping in drive or drive pressure is uneven.	1) Adjust moveable web guide to touch outer edge of stock with rear edge touching rear web guide. Do not pinch. 2) Remove stock from drive rollers. Using a piece of stock the same thickness as the stock being run as a "feeler" gauge, adjust set screws in drive endplates clockwise until "feeler" gauge barely slides between rollers with pressure lever closed. Rotate set screws clockwise an additional 1/2 - 3/4 turn. Rethread and operate. Minor adjustment can now be made to cause stock to run 31/32" (24.6mm) from upright frame.

Problem	Probable Cause	Corrective Action
Cracks or craze marks appear on face of finished labels.	1) Incorrect adjustment of decurler.	1) Move decurler turn-bar toward unwind end of machine until cracks no longer appear. NOTE: Stock-out switch rod may have to be readjusted after moving decurler.
Stock jams in bridge blade rollers or knife area.	1) Knife mounted bridge blade too close to stationary bridge blade. 2) Knife not cutting full width of stock. 3) Stacker not operating or nip rollers not turning.	1) Loosen screws in upper knife securing bridge blade roller assembly and slide up (holes in blade are slotted) until rollers just contact stock. Tighten screws. 2) Loosen knife shear adjustment screws and move outer end of knife until full cut is accomplished. 3) Check stacker connection to access port. Be sure nip roller is free to rotate and moves easily in the bearing slots.
Will not stack.	1) Stacker not operating. 2) Stacker position on machine too far forward so labels go under rear stacker rail. 3) Incorrect rail position or stacker bed angle.	1) See step 3 above. 2) Loosen stacker mounting knob and move stacker toward rear of machine - tighten. 3) Using a cut label, position stacker rails so that approximately 3/8" (9.5mm) overhangs the second grooved roller. Loosen quick-turn handle on stacker clamp and raise or lower stacker bed until opening between 1st label overhang and belt surface will allow entry of next label.
Knife will not cut or partial cut	1) Incorrect pre-load on clutch pawl. 2) Partial cut	1) With back cover removed and <u>power off</u> - operate solenoid by hand. When lever is moved, clutch pawl should move counter-clockwise about 1/32" (0.79mm) with the "pac-man" in home position. If not - loosen "pac-man" set screws and readjust "pac-man" to stop with spring in detent. 2) Loosen shear adjustment screws and move outer end of knife until full cut is obtained.

Ink

Problem	Probable Cause	Corrective Action
Ink wrinkles or will not pull smoothly.	1) Incorrect adjustment of unwind roller brake resistance. 2) Unwind roller and ink take-up roller misaligned.	1) Adjust knurled knob clockwise as far as possible without breaking ink or stalling ink motor. Do not bottom adjustment knob. Replacement of fiber brake disc may be required if printer has high hours. 2) Align rear edge of ink with rear of print area (allow approximately 1/8" (3mm) overlap). Loosen thumb cap screw on ink out sensor mount plate and adjust until it touches rear of ink roll on unwind arbor. Lock slide rewind core toward rear of printer until it just contacts plate.
	3) Ink buildup on turn bar(s).	3) Clean with alcohol.
	4) Incorrect ink width.	4) Use an ink width no wider than stock being printed. This is especially critical when using a narrow web with cut down rollers.
Ink rolls loosely on take-up roller.	1) Take-up roller not turning. 2) Take-up core binding on locator plate. 3) Take-up core not contacting ink drive roller. 4) Take-up roller too full.	1) Check that roller swing arm (rear of printer) is not binding and Roundthane™ belt is not broken or slips excessively. 2) Move core .015" - .030" (.38mm - .76mm) away from plate. 3) Assure that take-up roll is not binding on locator plate and swing arm moves freely. 4) Remove used ink roll. It is designed to hold only 1 full roll.

Print

Problem	Probable Cause	Corrective Action
Poor print - uneven or no print (mechanical). Also see electrical trouble shooting.	1) Incorrect printhead pressure adjustment.	1) Remove stock and ink. Close printhead. Release pressure (2 knurled knobs). Readjust pressure by turning knob(s) clockwise until they just contact printhead plate. Reinstall stock and ink. Turn adjusters clockwise approximately 1/8 turn (5 clicks of knob). As machine operates, increase pressure (2-3 clicks at a time) until best print is obtained. Narrow webs will require less pressure on front adjuster. If print is still poor, loosen (2) M3 cap screws visible on outer edges of printhead carrier. Adjust tangent point to optimum print by rotating M3 screw in top center of printhead plate. Lock in place with 2 outer M3 cap screws.
	2) Broken ink.	2) Replace ink and readjust (see INK trouble shooting).
	3) Ink not rewinding.	3) Readjust (see INK trouble shooting).

Knife

Problem	Probable Cause	Corrective Action
Double Cuts, extra knife cycle	1) Solenoid sticking in	1) Check proper assembly of washers. Clean plunger with alcohol and completely dry.
	2) Worn Trip Arm on Clutch actuator.	2) Replace Actuator
	3) Worn Stop roll pin on clutch	3) Replace Clutch if not solved above.
Skips cut, double length label	1) Solenoid did not pull in	1) Check gap on the trip arm to clutch body must be about .040 inches. If too large, solenoid has less force. Check assembly of spring and washers. Use latest engineering assembly procedure. Clean Solenoid.
	2) Trip arm sticking on clutch roll pin.	2) Check for burr on trip arm catching on clutch stop roll pin. File off burr on clutch roll pin and/or replace trip arm.
	3) Low voltage to solenoid	3) Check power supply voltage for 12 and 24 volts
	4) Weak solenoid driver	4) Substitute TCB. Change back if not solved.
	5) Bad Solenoid	5) Unusual, but replace Solenoid and adjust.
Noisy Rattle when not cutting but motor turning	1) Packman not visibly homing	1) Adjust Packman to center the home location of the packman to the quiet location. If the knife still does not home, clean knife cams and lubricate. If still does not home, replace blades. If still does not home, replace clutch.
	2) Packman homing ok but noisy.	2) Adjust Packman to center the home location of the packman to the quiet location .
	3) Dirty Clutch	3) Clean clutch and one drop of light oil.
	4) Packman slipping	4) Order improved set screws with multiple points that bite better to shaft.
	5) Bad Motor Gear Box	5) Replace Knife Motor

Problem	Probable Cause	Corrective Action
Knife stops during cut in stock	1) Check life of blades 2) Clean cams and lubricate 3) Clutch worn out and can't stay engaged	1) If warn and dull, may stall in stock. If life is greater than 2 million, replace blades. 2) Make sure oiler is on knife. Instruct Operator to oil weekly. Make sure oil is available. 3) Replace Clutch
Slight Long and Short Tags	1) Sticking Solenoid 2) Sticking Trip Arm to Clutch Roll Pin 3) Clutch has trouble picking up	1) Check gap on the trip arm to clutch body must be about .040 inches. If too large, solenoid has less force. Check assembly of spring and washers. Use latest engineering assembly procedure. Clean Solenoid. 2) Check for burr on trip arm catching on clutch stop roll pin. File off burr on clutch roll pin and/or replace trip arm. 3) Clean clutch and replace if not solved
Stock popping in front of knife	1) Slow knife rotation 2) Clutch has trouble engaging and stock runs into blades	1) Worn out blades create too much load for motor and knife slows down too much during cut. Replace Blades. 2) Clean clutch and replace if not solved.
Knife does not cycle	1) Solenoid not engaging 2) Knife Motor Broken 3) Clutch total failure 4) Solenoid Drive circuit failure 5) Knife motor not cycling	1) Trip knife solenoid by hand to see if knife cycles. If cycles and cuts, check cable to solenoid, check solenoid adjustments and assembly, check gap and replace solenoid if necessary. 2) Replace Knife Motor, good for 10 million labels by spec 3) Unlikely, but change if necessary 4) Replace Cable or TCB 5) Replace Cable or TCB
Continuous Knife cycling	1) Solenoid stuck in 2) Circuit stuck on 3) Very bad trip arm to stop pin on clutch	1) Clean and adjust solenoid. 2) Unplug solenoid wires from knife module connector and should stop cutting. If it does stop cutting, replace TCB. 3) Unusual, but file roll pin and replace trip arm.

Mechanical Trouble Shooting Sequence

If the printer is electrically operable, proceed as follows:

- 1) Open printhead and drive pressure roller and remove stock.
- 2) Adjust unwind inner web guide to 31/32" (24.6mm) per instructions (See **Printer Operation - Web Guide Adjustment**).
- 3) Take a short (2-3") (50-75mm) piece of stock you wish to run and adjust the drive module pressure per instructions (See **Maintenance / Adjustments - Stock Feed Adjustments**).
- 4) Rethread machine, close drive module pressure handle. Close print module.
Release pressure on printhead adjustment knobs. Operate printer and fine tune drive module pressure until web tracks at 31/32" (24.6mm) from back edge to center frame.
- 5) Open drive pressure module, remove stock and ink and readjust print module pressure per instructions (See **Maintenance / Adjustments - Print Head Adjustments**).
- 6) Reinstall stock and ink, operate and make any further adjustments (sense-mark, stock-out arm, stacker etc) per trouble shooting section of manual.

Lubrication Procedure

General

The 636 / 656 series printers are factory equipped with either composition bearings not requiring lubrication or pre-lubricated bronze bearings. The one exception is the rub cams on either end of the rotary knife. Periodic cleaning of the printer and removal of dust will greatly enhance the length of the time the printer will function.

Cam - Lubrication Procedure

- 1) Clean dust and residue from cams (using alcohol or other suitable solvent) daily, or approximately every 100K cuts. Use any good quality general purpose grease (not oil). Apply with cotton swab or other non-metallic device.
- 2) If lubrication is omitted, knife will squeak and draw attention to required lubrication.

Composition (Iglide) Bearings

- 1) If field replacement of an assembly fitted with an Iglide bearing is performed, a single drop of spindle oil should be applied to assist in bearing break-in.
- 2) If, after long use, an Iglide bearing starts to "squeak", disassemble the component containing the bearing and lightly abrade the shaft surface. Clean the bearing (dust or old oil) with alcohol, re lubricate with 1 drop of light oil and reassemble.

No other printer lubrication should be required in normal use.

Appendix A

Error Messages

On the Machine's detection of errors/error, the displays will show the first error encountered and allow the displaying of any other errors with the "<" and ">" keys, which "Scroll" through additional errors if any.

ERROR SCREENS:

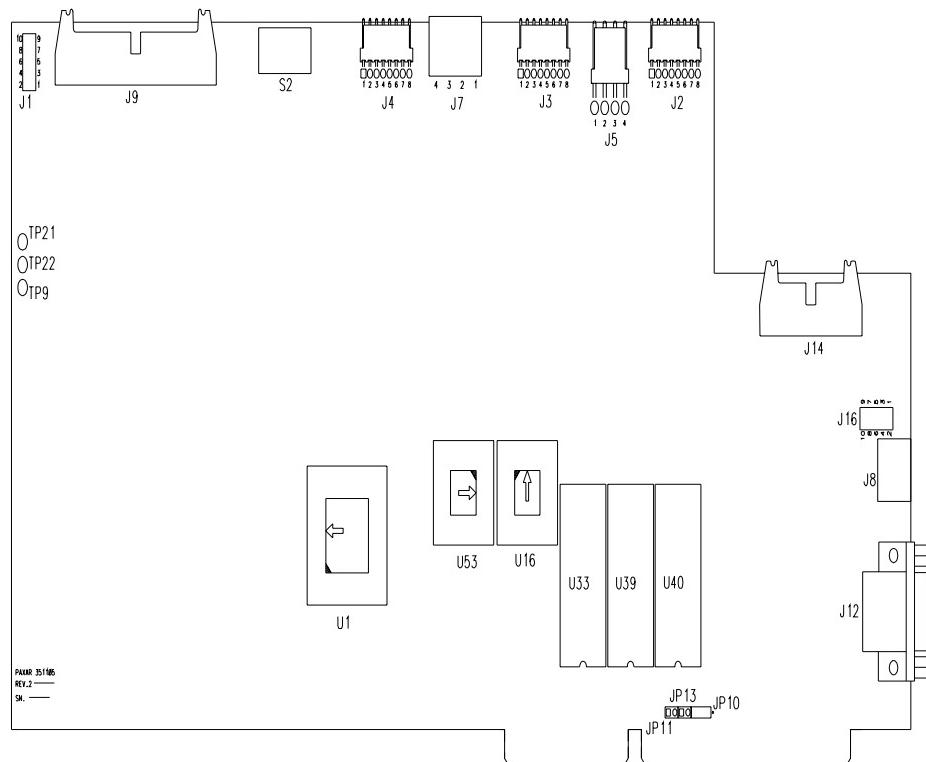
The screen advances to next error with each depression of the ">" key
The screen retreats to prior error with each depression of the "<" key

<u>ERROR MESSAGE</u>	<u>ERROR NUMBER</u>
"1/10 ERRORS" "STOCKOUT"	901
"1/10 ERRORS" "INK OUT"	904
"1/10 ERRORS" "HEAD OR FEED OPEN"	910
"1/10 ERRORS" "MISSED SENSE MARK"	701
"1/10 ERRORS" "DOOR OPEN"	903
"1/10 ERRORS" "STACK FULL"	902
"1/10 ERRORS" "HEAD OVTEMP"	404
"1/10 ERRORS" "VERIFIER HALT"	912
"1/10 ERRORS" "SYS ERRORS"	911
"1/10 ERRORS" "DOWN LOAD ERR"	913

Appendix B

Software Upgrade Chip Placement Positions

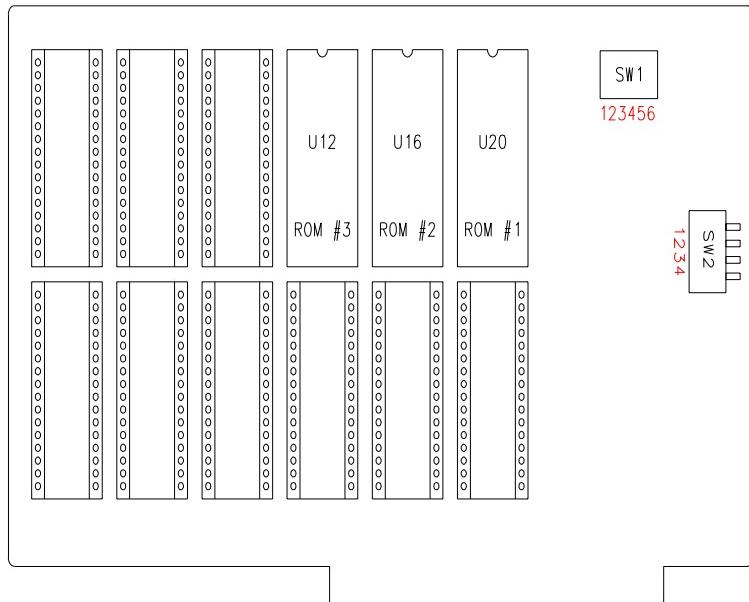
Thermal Control Board P/N 351105



(Use chip removal tool p/n. 351156 for square I.C.'s)

THERMAL CONTROL BOARD, Upgradeable software I.C.'s include U16 and U53. Align angled corners of chip with socket and arrow denotes pin #1 or dimple on chip.

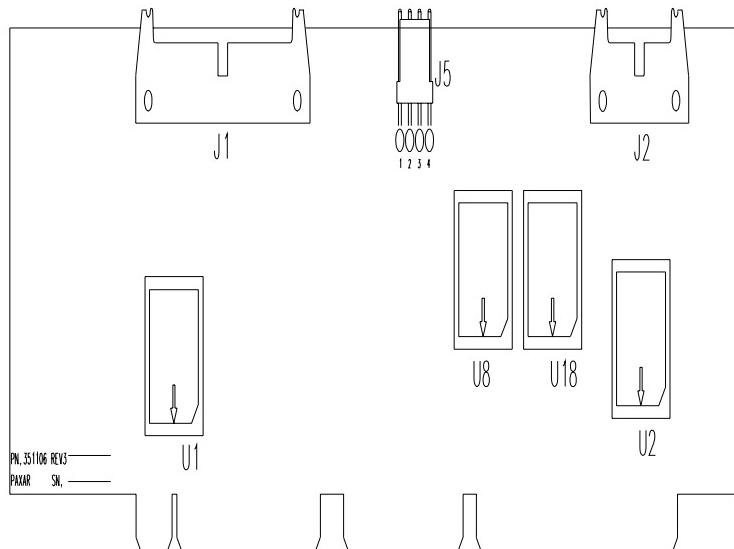
Diskless Rom Board P/N 281164



DISKLESS ROM BOARD, Upgradeable software I.C.'s include U12, U16, and U20.
Position new I.C.'s in same orientation as pictured above.

SWITCH POSITIONS, **SW1:** 1 and 6 = OFF, 2 thru 5 = ON,
SW2: 1 thru 4 = ON

Head Driver Board P/N 351106

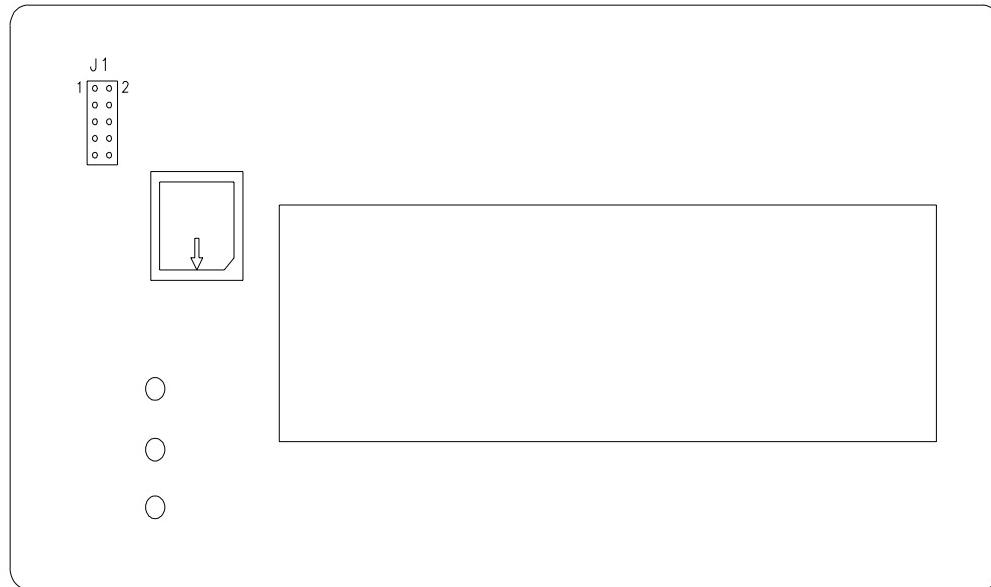


(Use chip removal tool p/n. 351156 for square I.C.'s)

HEAD DRIVER BOARD, Upgradeable software I.C.'s include U1, U2, U8, and U18.

Align angled corners of chip with socket and arrow denotes pin #1 or dimple on chip.

Front Panel Board P/N 351108



(Use chip removal tool p/n. 351156 for square I.C.'s)

FRONT PANEL BOARD, Upgradeable software for FPNL x.x
Align angled corners of chip with socket and arrow denotes pin #1 or dimple on chip.

Appendix C

Ink and Stock Transfer Types

Value	Transfer Type
051	Heat Seal & SD-1111 Ink
052	Topcoated card stock & TT-3111 Ink
053	Topcoated card stock & TT-1111 Ink
054	Topcoated card stock & HR-3111 Ink
055	Topcoated card stock & HR-1111 Ink
056	Topcoated Card Stock & TW-1111 Ink
057	Topcoated card stock & TW-1151 Ink
058	Pressure Sensitive & TT-3111 Ink
059	Pressure Sensitive Thermal Receptive & TT-1111 Ink
060	Pressure Sensitive Thermal Receptive & TW-1111 Ink
061	Pressure Sensitive & TW-1151 Ink
062	Pressure Sensitive & HR-3111 Ink
063	Uncoated Tag Stock & TT-3111 Ink
064	Uncoated Tag Stock & TT-1111 Ink
065	Uncoated Tag Stock & HR-3111 Ink
066	Uncoated Tag Stock & HR-1111 Ink
067	Uncoated Tag Stock & TW-1111 Ink
068	Uncoated Tag Stock & TW-1151 Ink
069	Fabric 2800 & TT-1111 Ink
070	Fabric 2800 & HR-3111 Ink
071	Fabric 2800 & TT-3111 Ink
072	Fabric 2800 & HC-3111 Ink
073	Fabric 2800 & HR-1111 Ink

Value	Transfer Type
074	Fabric 2795 & TT-1111 Ink
075	Fabric 2795 & HR-3111 Ink
076	Fabric 2795 & TT-3111 Ink
077	Fabric 2795 & HC-3111 Ink
078	Fabric 2795 & HR-1111 Ink
078	Fabric 2395 & CL-1111 Ink
078	Fabric 2495 & CL-1111 Ink
078	Fabric 4000 & CL-1111 Ink
079	Coated Tag Stock & HR-4111 Ink
080	Pressure Sensitive & HR-4111 Ink
081	Uncoated Tag Stock & HR-4111 Ink
082	Fabric 2800 & HR-4111 Ink
083	Fabric 2795 & HR-4111 Ink
084	New Pressure Sensitive (no xfer) & TT-3111 Ink
085	New Pressure Sensitive (no xfer) & TT-1111 Ink
086	New Pressure Sensitive (no xfer) & TW-1111 Ink
087	New Pressure Sensitive (no xfer) & TW-1151 Ink
088	New Pressure Sensitive (no xfer) & HR-1111 Ink
089	New Pressure Sensitive (no xfer) & HR-3111 Ink
090	New Pressure Sensitive (no xfer) & HR-4111 Ink
091	Coated Tag Stock & GP-1111 Ink
092	Uncoated Tag Stock & GP-1111 Ink
093	New Pressure Sensitive (no xfer) & GP-1111 Ink
094	2800 Fabric & GP-1111 Ink
095	2795 Fabric & GP-1111 Ink
096	2795 Fabric & CT-1111 Ink
097	4800 Fabric & CT-1111 Ink
116	591SST Fabric & CT-1111 Ink

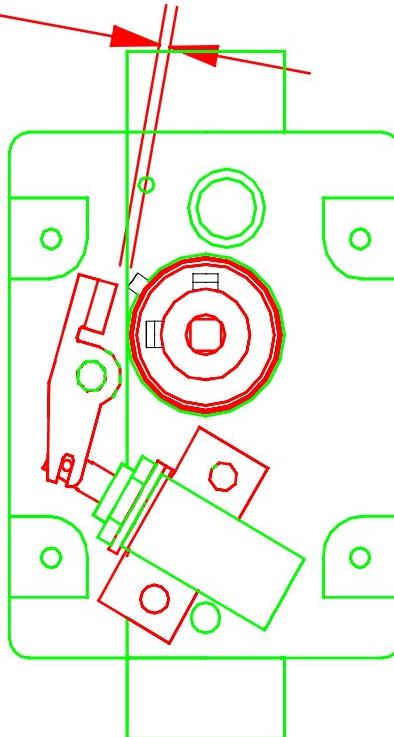
Value	Transfer Type
117	591SST/601SST Fabrics & CT-1114 Ink
118	601SST Fabric & CT-1111 Ink
119	591SST/601SST Fabrics & CT-1115 Ink
120	591SST/601SST Fabrics & CT-1117 Ink
121	591SST Fabric & CT-1112 Ink
122	601SST Fabric & CT-1112 Ink

Appendix D

Knife MFG Guideline

Solenoid Trigger Setting

.047 +.000
- .020
FEELER GUAGE

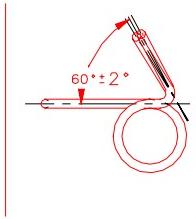


1. After the clutch and actuator is mounted to the knife, attach the solenoid assembly to the inside support using two 6-32 x 3/8 cap screws, flat washers, and lock washers. Make sure the plunger moves freely and does not bind. Motor and faceplate must be mounted also.
2. Check the gap between the actuator and the top of the pin on the clutch as shown in drawing. The plunger should be pushed in to make the measurement.

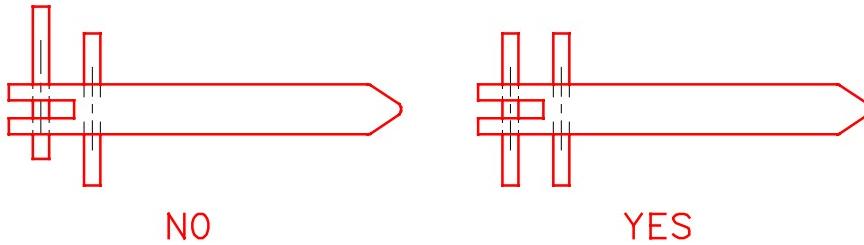
Other hints if there is still a problem:

- If the gap is greater than .047", an old solenoid bracket is being used. Replace (P/N 357003) or slot the bracket.
- If plunger binds, the solenoid is not parallel with the base of the bracket that mounts to the knife support, and/or the actuator slot is bottoming out on the roll pins that are on the plunger. Make adjustment or replace the bracket.

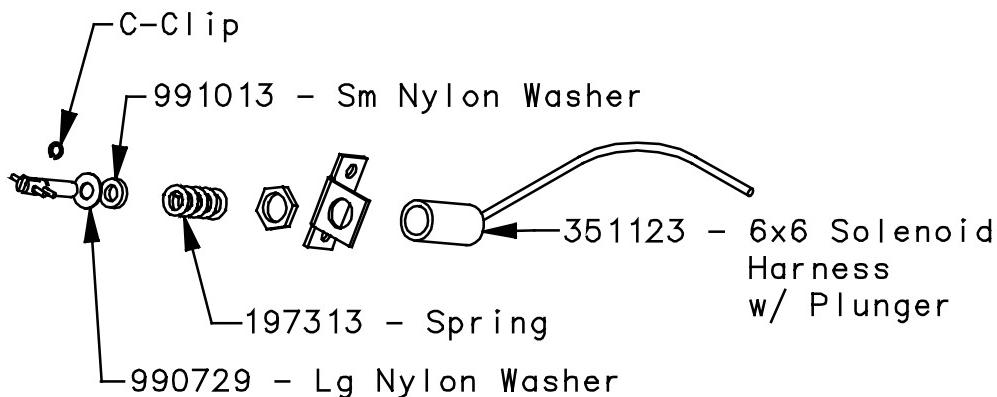
- Torsion Spring should be at an angle of $60^{\circ} \pm 2^{\circ}$. Lay the spring over the drawing below to see if the spring is made properly.



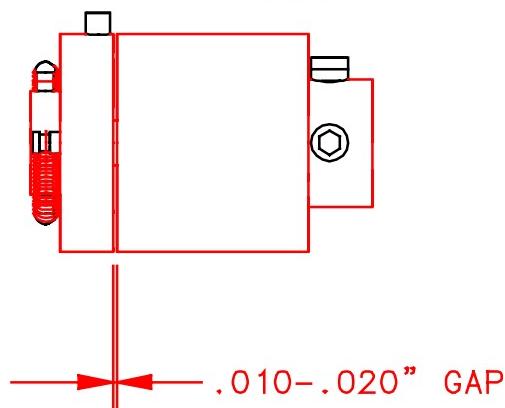
- Plunger pins should be centered on shaft. If either pin is loose **DO NOT** use the plunger. The pins should be checked before installing.



- (Rev 3) Replace both roll pins on all reworked assemblies.
- (Rev 4) Effective 3/3/97 a large nylon washer will be added **between the coil pin and the c-clip on the plunger**. To install, the c-clip has to be removed, then put the large washer on the plunger and push it down against the coil pin. While holding it in that location, re-install the c-clip. Now the Small nylon washer and spring can be put on the plunger and inserted into the solenoid.



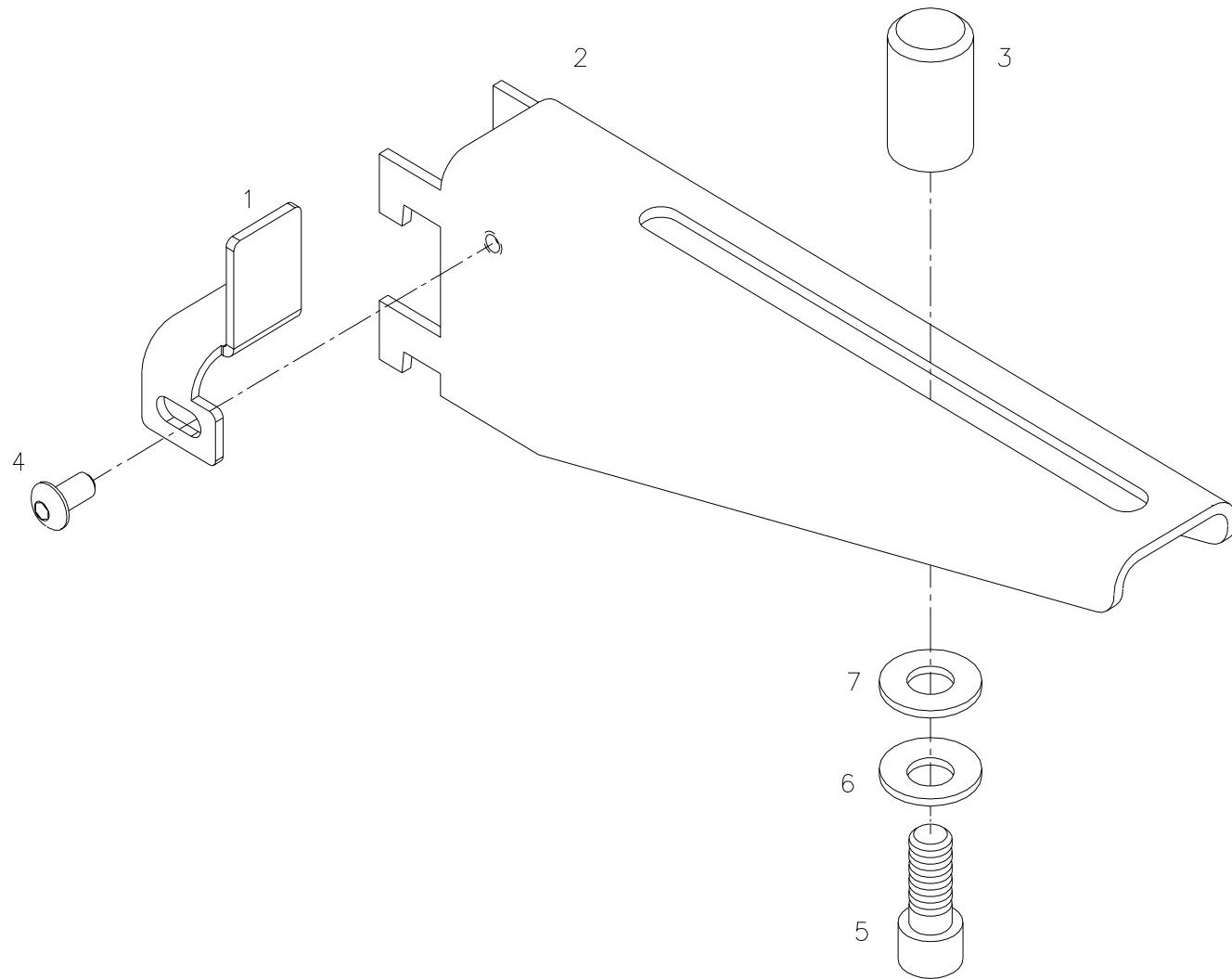
- There should be a .010-.020 gap (for roller clutch only) between the two clutch pieces.



- (Test on the solenoid test box.) The knife must cut both fabric and card stock. The solenoid should operate on both the high and low settings.
- Excessive motor drag must be minimal at start/stop and while running. Replace or repair problem component. On old knife assemblies, there are bronze bushings in outer support. They may be causing a bind. Ream bushing and retest. (Do not ream if it is a roller bearing.)
- (Rev 1) Pre-load setting adjustment. While motor is running, not while cutting, loosen set screws on "pac-man" and rotate the rotary blade clockwise, mark the stopping position on the "pac-man", rotate counterclockwise, mark the "pac-man", then rotate the blade to the middle of the two marks and tighten the set screws.
- (Rev 2) All new knife assemblies have a blue clutch. The clutch outer race bushing has an I.D. of .500 and the 2 extension springs are .012 dia wire.
- (Rev 2) The 2 extension springs on all rebuilt clutches must have the .009 dia. wire springs replaced with .012 wire springs.
- (Rev 5) Replace Knife Actuator 357020, if it is worn or if there is a "bulge" at the 90-degree bend.
- (Rev 6) Changed feeler gauge tolerance from .047 MIN

Assembly Drawings

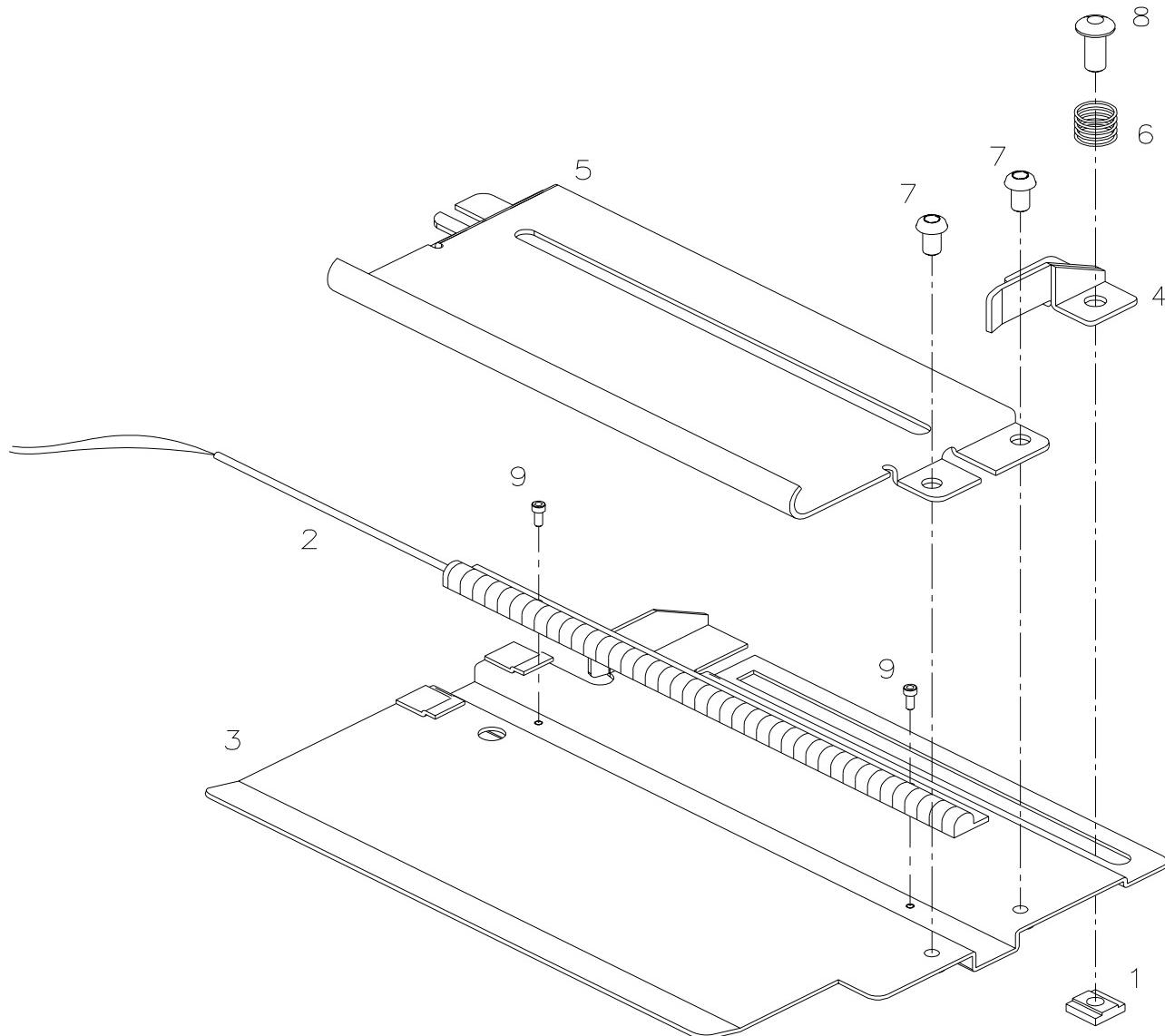
Unwind Assembly Drawing



Unwind Parts List

Item	Part #	Description	Qty
1	353001	Guide, Unwind Rear	1
	353005	Optional Unwind backer plate (not shown)	1
2	353002	Bracket, Unwind	1
3	353003	Guide, Unwind Front	1
4	990089	10:32 x 1/4 Button Head	1
5	990170	5/16:18 x 3/4 Cap Screw	1
6	990277	5/16" Bellville Washer	1
7	990439	.340 x .740 Nylon Washer	1

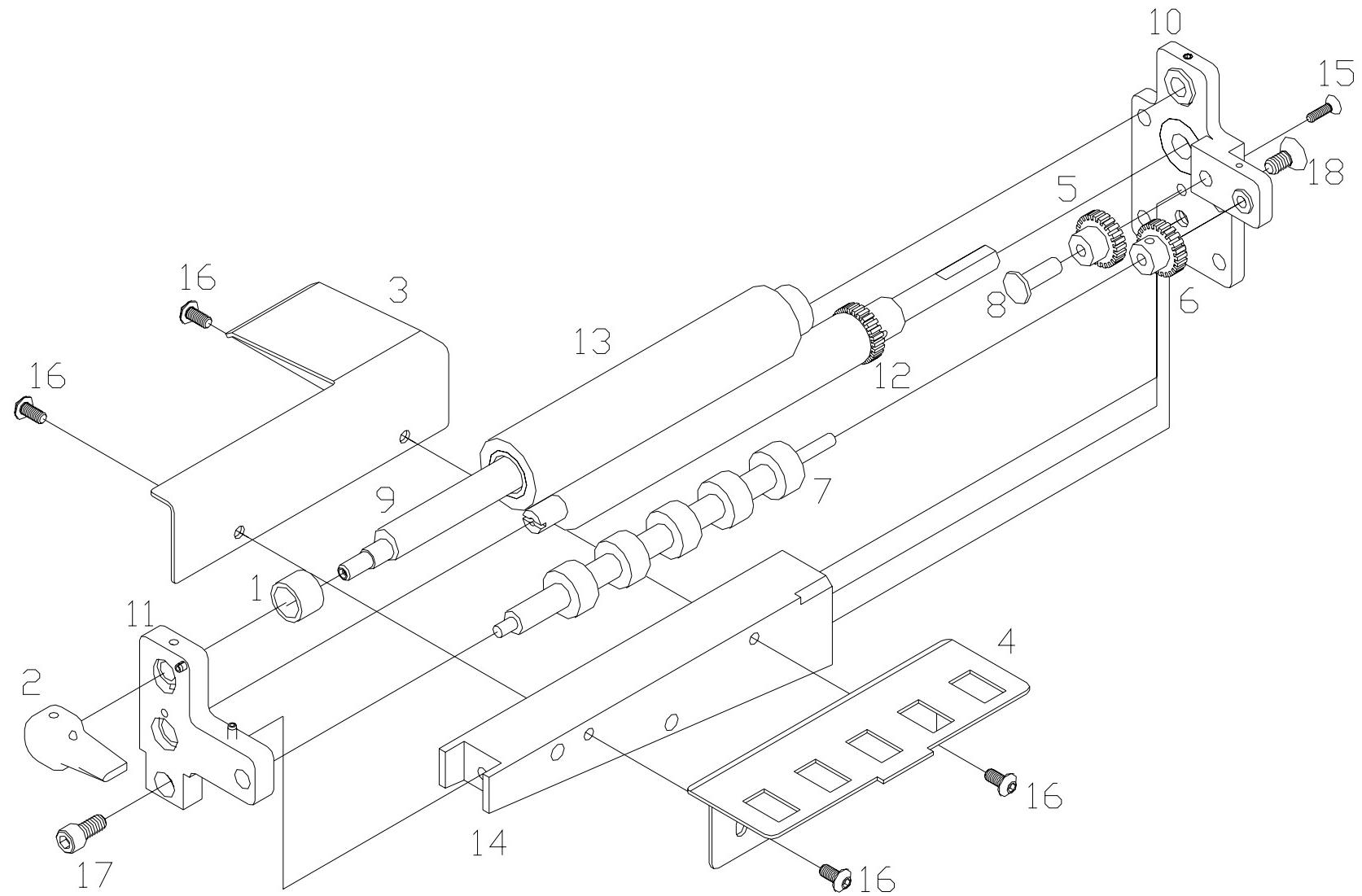
Web Guide / Light Bar Assembly Drawing



Web Guide / Light Bar Parts List

Item	Part #	Description	Qty
1	188008	T-Nut	1
2	351120	Light Bar Harnessed	1
3	354006	Bracket, Web Guide Sensor	1
4	354003	Web Guide Outer	1
5	354001	Plate, Web Guide Mount	1
6	928012	Spring	1
7	990066	8:32 x 1/4 Button Head	2
8	990091	10:32 x 1/2 Button Head	1
9	990438	1:72 x .188 Cap Screw	2

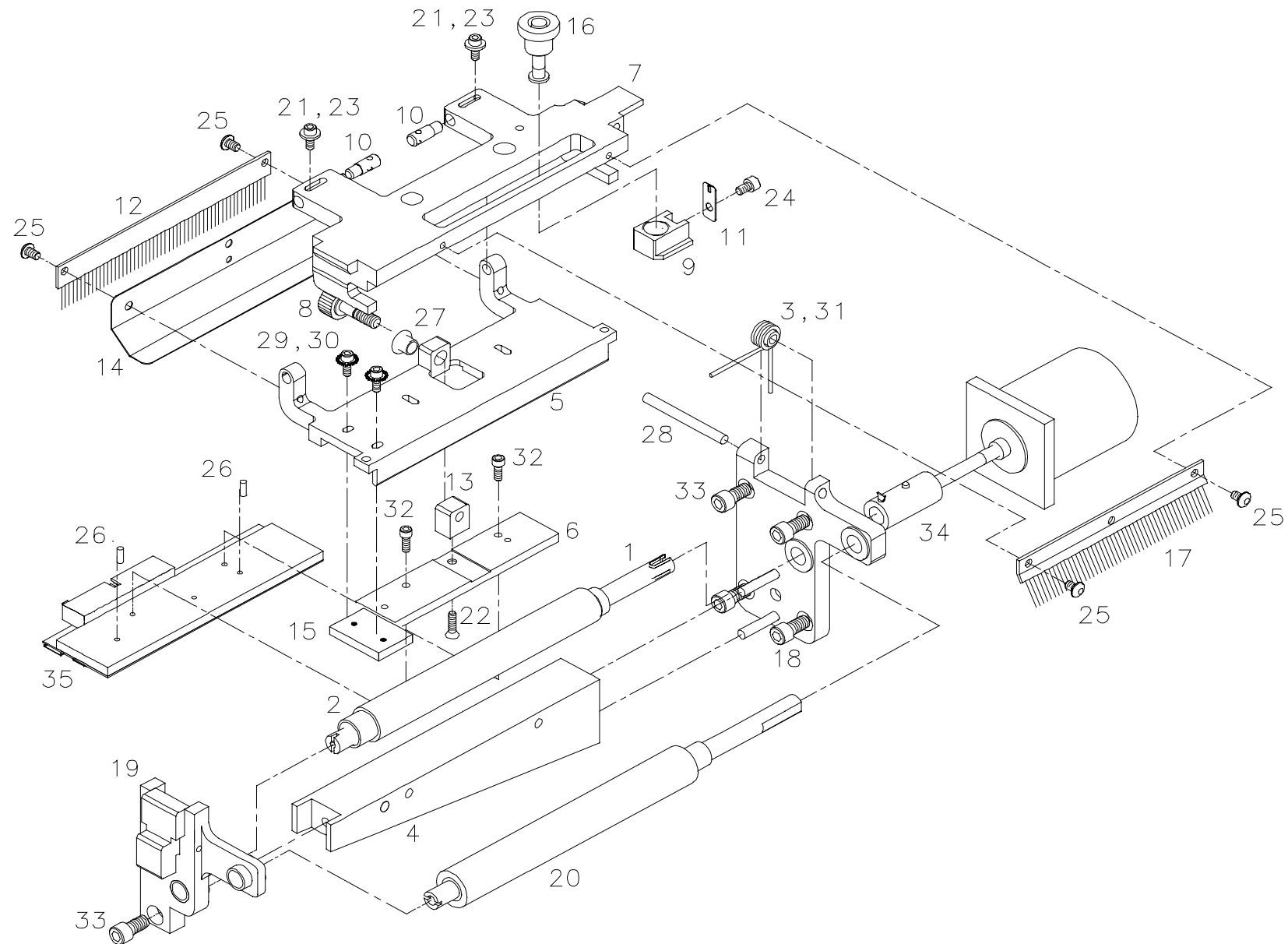
Drive Assembly Drawing



Drive Parts List

Item	Part #	Description	Qty
1	196052	Idler Pulley Bushing	1
2	244024	Feed Knob/SS	1
3	354002	Bridge Plate, Web	1
4	354004	Bridge Blade, Lower	1
5	354008A	Gear, Idler	1
6	354009A	Gear, Driven	1
7	354014	Driven Roller, Molded	1
8	354017	Shaft, Idler Gear	1
9	354021	Eccentric Shaft	1
10	354092	Support, Rear Drive Assembly	1
11	354093	Support, Front Drive Assembly	1
12	354094	Roller, Drive Assembly	1
13	354095	Roller, Tape Assembly	1
14	355018	Support, Knife/Drive/Print	1
15	990023	6-32 x ½" Flat Head Screw	1
16	990090	10-32 x 3/8" Button Head Screw	4
17	990120	¼-20 x ½" Cap Screw	5
18	990416	¼-20 x ½" Flat Head Screw	1

Printhead Assembly Drawing

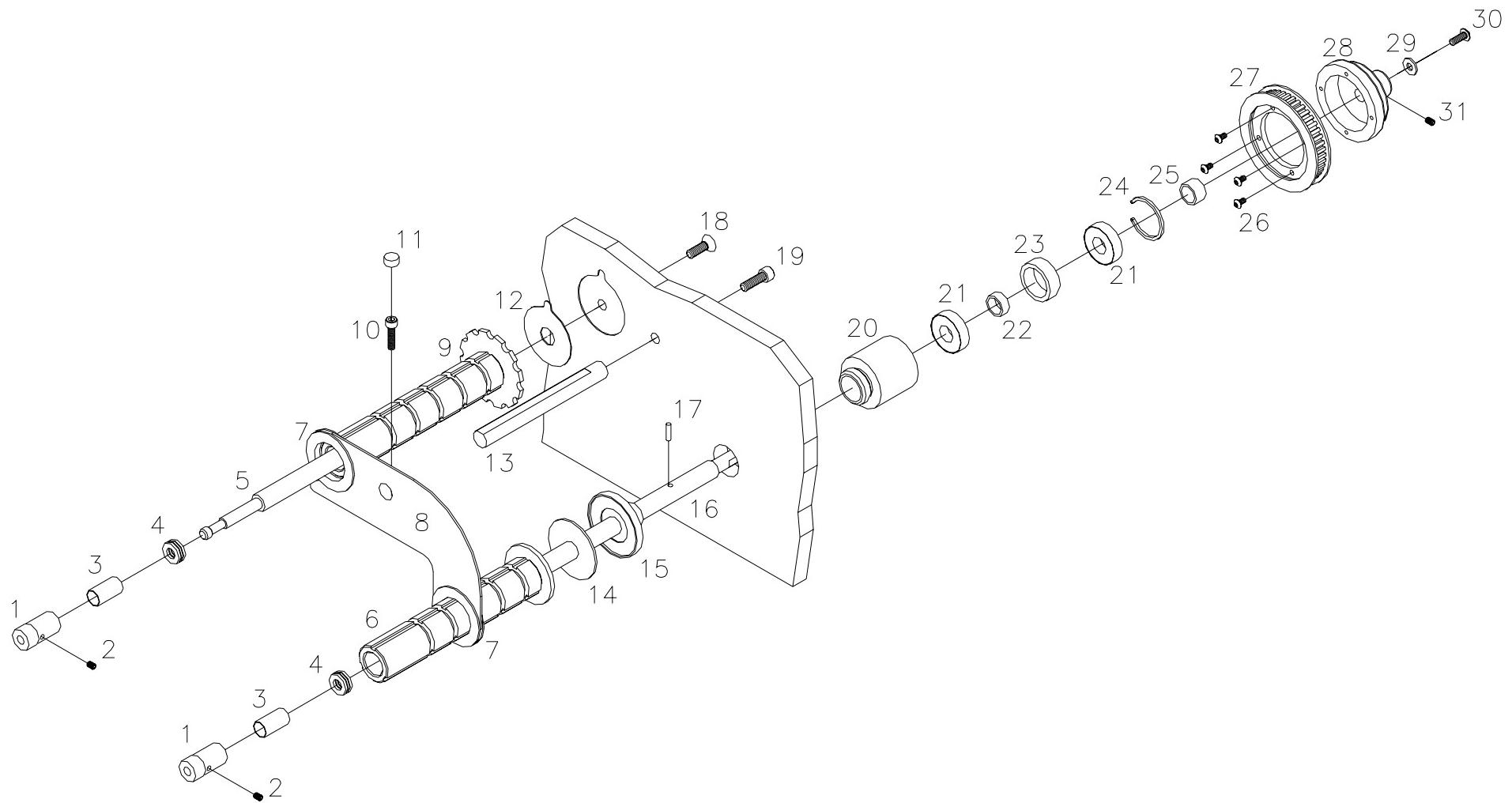


Printhead Parts List

Item	Part #	Description	Qty
1	355004	Shaft, Eccentric (PRT)	1
2	355083	Roller, Molded Printhead	1
3	355008	Spring, Torsion Printhead	1
4	355018	Support, Drive/Knife/Print	1
5	355032	Plate, Printhead Mount	1
6	355033	Adjustment Plate, Printhead	1
7	355031	Holder, Printhead	1
8	355034	Shaft, Adjustment	1
9	355035	Pressure Adjuster	1
10	355037	Pin, Pivot	1
11	355038	Knob Clip	1
12	355039	Static Brush	1
13	355040	Block, Head Adjust	1
14	355041	Shield, Static	1
15	355042	Plate, Locator Printhead	1
16	355094	Adjuster, Printhead Assy	1
17	357011	Static Brush	1
18	355092	Support, Inner Printhead Assy	1
19	355093	Support, Outer Printhead Assy	1
20	356020	Roller, Molded Ink	1

Item	Part #	Description	Qty
21	990015	6-32UNC-2A X .25 Cap Screw	2
22	990028	6-32UNC-2A X .38 Fl Hd Screw	1
23	990037	#6 Washer	2
24	990047	8-32UNC-2A X .125 Cap Screw	1
25	990066	8-32UNC-2A X .25 Btn Hd Screw	4
26	990492	3M X 8M Dowel Pin	1
27	999041	1/4 X 5/16 X 1/4 Fl Iglide	1
28	990250	3/16 X 2.00 Dowel	1
29	989976	#6 Star Washer	2
30	990016	6-32UNC-2A X .38 Cap Screw	2
31	999051	3/16 X 5/16 X 5/16 Bushing	1
32	990444	3M X14 Cap Screw	2
33	990120	1/4-20UNC-2A X .50 Cap Screw	5
34	355097	Ink Motor Assembly	1
35	351102	Printhead 300DPI	1
	351101	Printhead 240 DPI	

Ink Unwind / Rewind Assembly



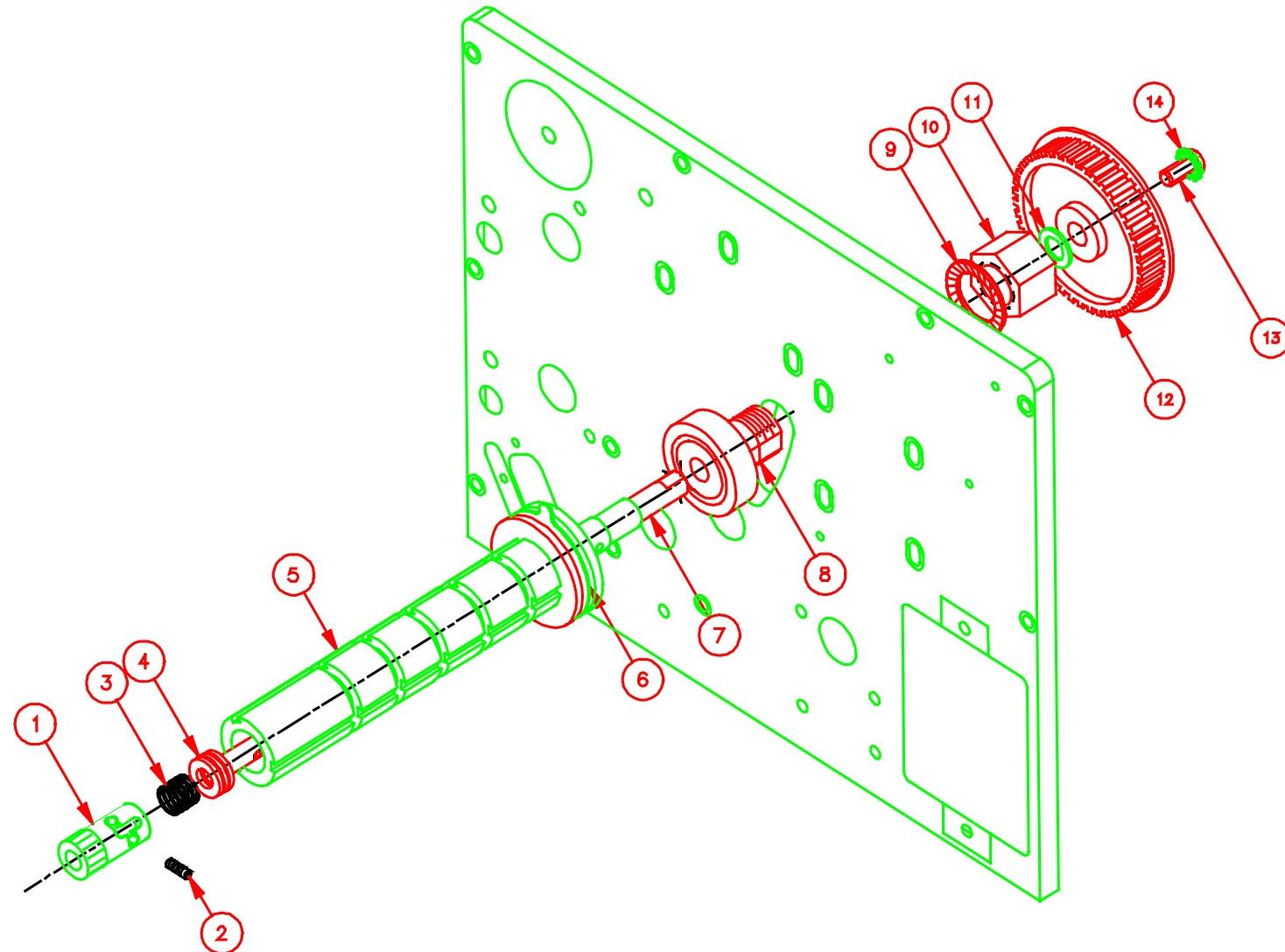
Ink Unwind / Rewind Parts List

Item	Part #	Description	Qty
1	356010	Shaft Lock	2
2	990042	8-32 x 3/13" Set Screw	2
3	990490	Spring	2
4	999009	5/16" Thrust Bearing	2
5	356053	Unwind Shaft	1
6	376087	Arbor Assembly	1
7	376003	Ink Arbor Guide	2
8	516113	Ink Guide	1
9	376088	Arbor Unwind Assembly	1
10	990083	10-32 x 3/4" Cap Screw	1
11	990313	#10 Thumb Cap	1
12	376026	Unwind Fiber Spacer	1
13	356016	Shaft, Foil Bracket	1
14	376048	Disc Brake	1
15	376017	Hub Rewind	1
16	376029	Shaft, Rewind	1

Item	Part #	Description	Qty
17	990251	1/8 x 1/2" Dowel Pin	1
18	990133	1/4-20 x 3/4" Flat Head Screw	1
19	990122	1/4-20 x 3/4" Cap Screw	1
20	376016	Bearing Housing	1
21	999002	Bearing	2
22	376023	Bearing Spacer	1
23	376025	Bearing Spacer	1
24	991018	Internal Snap Ring	1
25	376024	Bearing Spacer	1
26	990019	6-32 x 1/4" Button Head Screw	4
27	376022	Sprocket Altered	1
28	376014	Adapter Ink Sprocket	1
29	990102	#10 SAE Washer	1
30	990091	10-32 x 1/2" Button Head Screw	1
31	990058	8-32 x 1/4" Set Screw	1

Ink Rewind Arbor Assembly

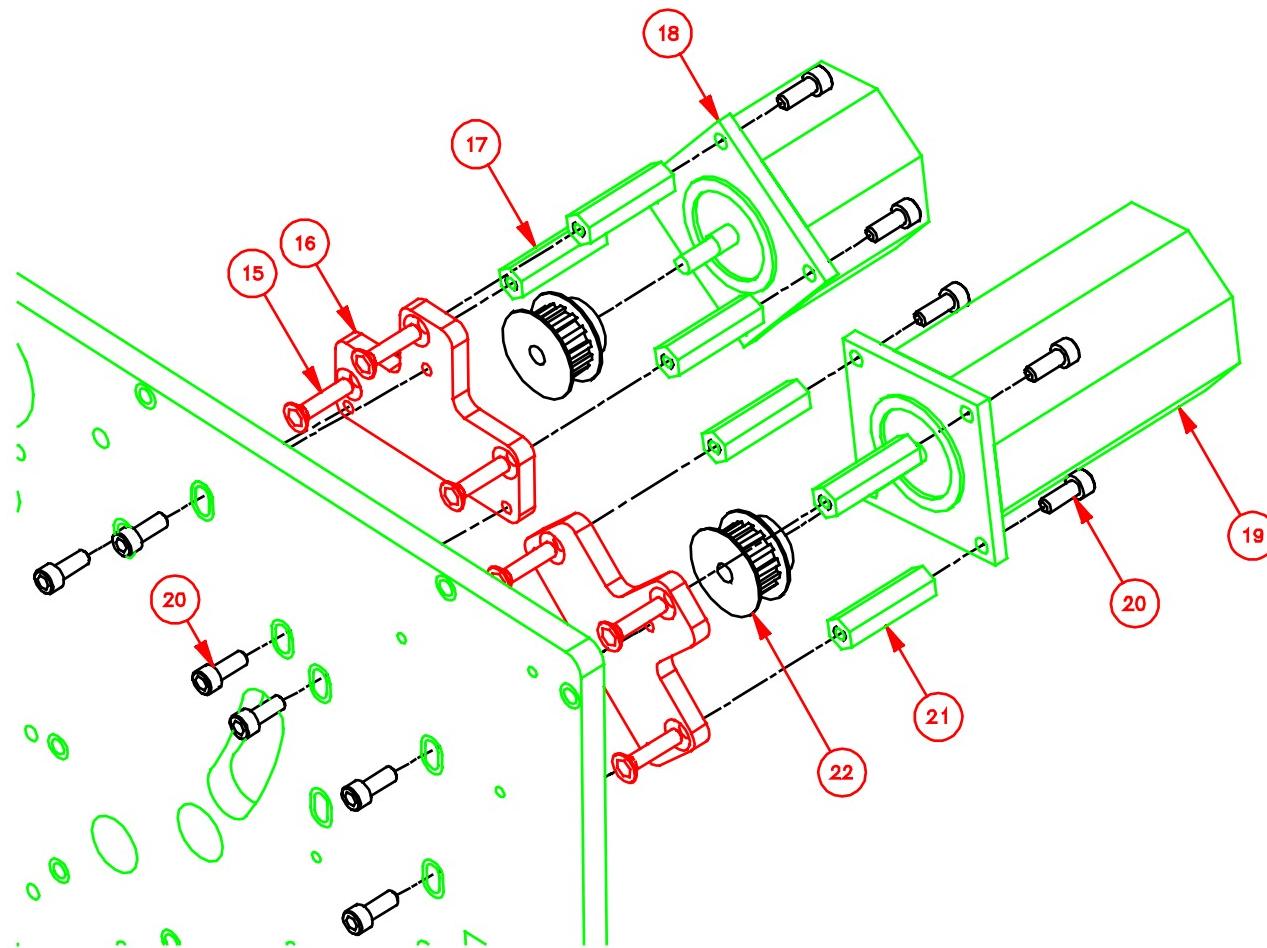
Field Retrofit Kit



Ink Rewind Arbor Parts List

Item	Part #	Description	Qty
1	356010	Lock Spring Pressure	1
2	-----	No Longer Used	--
3	991036	Compression Spring	1
4	999009	5/16 Thrust Bearing	1
5	376087	Arbor Assembly	1
6	376048	Unwind Fiber Spacer	1
7	356191	Fixed Rewind Shaft Assembly	1
8	356192	Front Bearing Housing Assembly	1
9	991038	¾" Serrated Bellville Washer	1
10	356193	Rear Bearing Housing Assembly	1
11	991037	.047" Steel Shim	1
12	356108	42T Timing Belt Pulley	1
13	990134	¼-20 x ¼ Button Head	1
14	990434	¼" External Tooth Washer	1

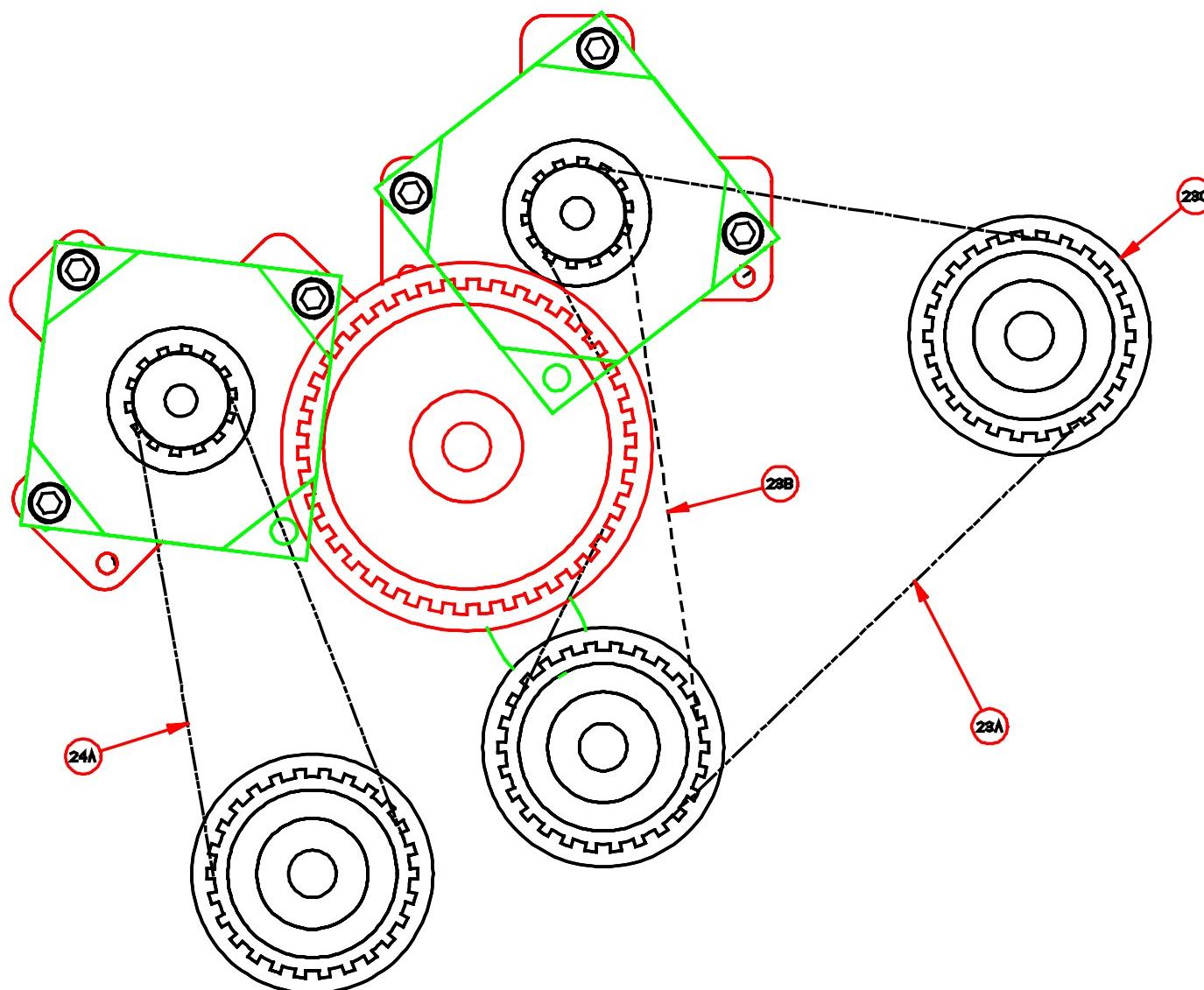
Feed & Ink Drive Assembly



Feed & Ink Drive Parts List

Item	Part #	Description	Qty
15	990111	10-32 x ¾" Flat Head Screw	6
16	356106	Offset Plate	2
17	990451	1 9/16 Stand-Off	3
18	351141	Ink Motor	1
19	245026	Feed Motor	1
20	990081	10-32 x ½" Cap Screw	12
21	194023	1 3/8 Stand-Off	3
22	284025	14 Tooth Pulley	2
N/A	356109	Ink Timing Belt (85 Tooth)	1
N/A	356110	300dpi Feed Timing Belt (60 Tooth)	1
N/A	356026	240dpi Feed Timing Belt (57 Tooth)	1

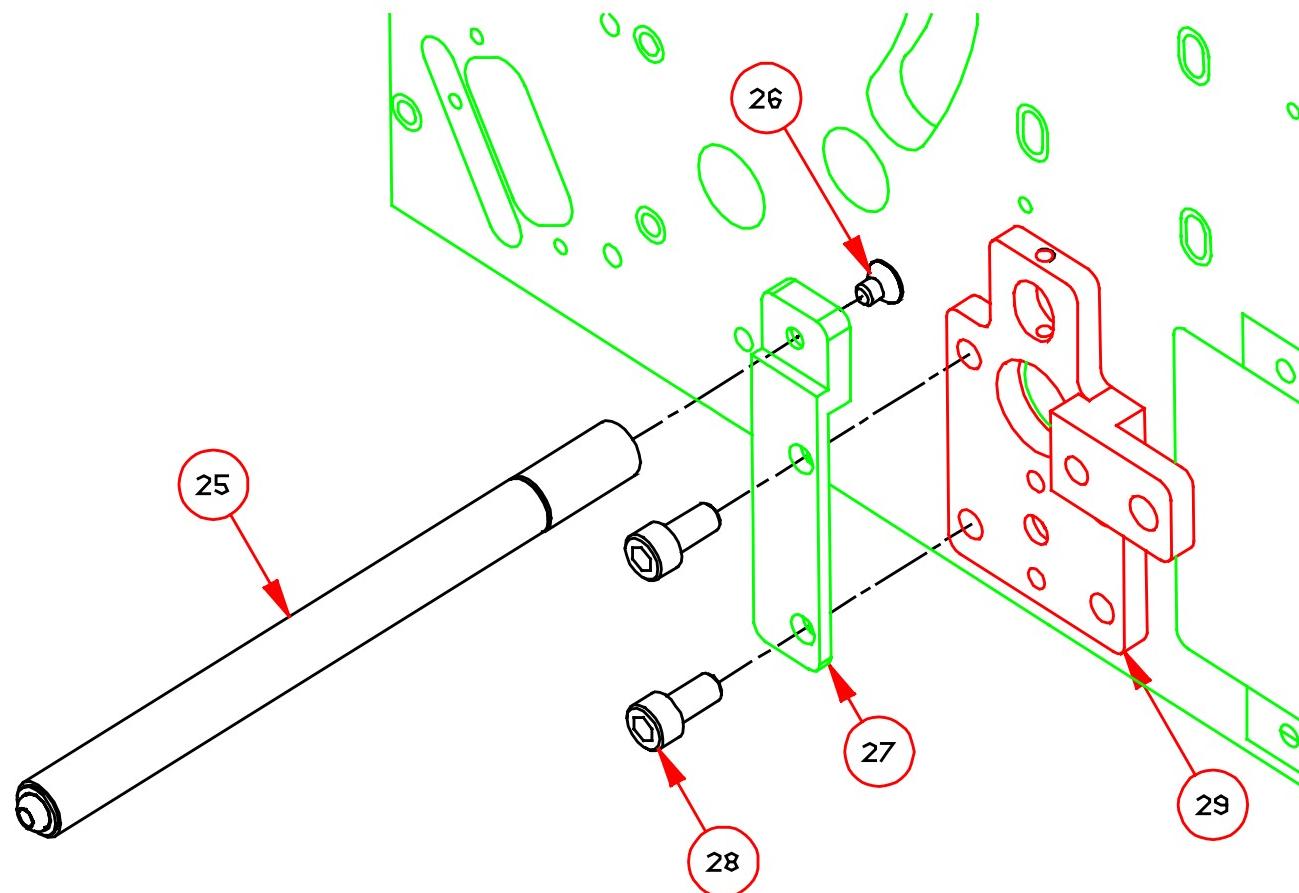
Timing Belt Threading Diagram



Timing Belt Parts List

Item	Part Number	Qty	Description
23A	356109	1	85T Timing Belt Double Sided (First 100 units only)
23B	356111	1	65T Timing Belt Double Sided (101 +)
23C	356195	1	20T Idler Pulley w/ Bronze Bushing (First 100 units only)
24A	356110	1	60T Timing Belt (300dpi)
24B	356026	1	57T Timing Belt (240dpi) Not Shown

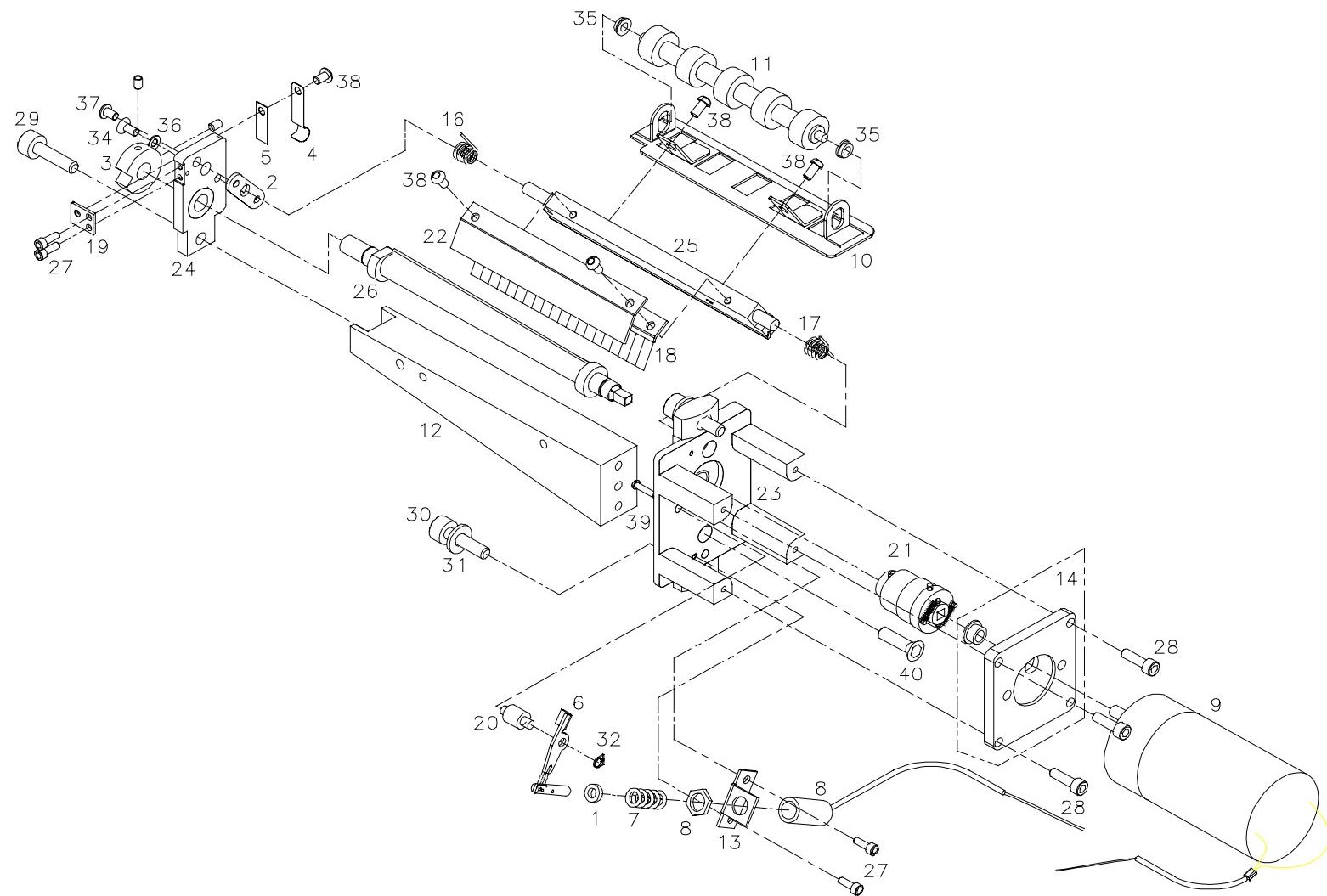
Ink Turn Roller Assembly



Ink Turn Roller Parts List

Item	Part Number	Qty	Description
25	376086	1	Turn Bar Assembly
26	990416	1	1/4-20 x 1/4" Flat Head
27	356105	1	Turn Bar Bracket
28	990121	1	1/4-20 x 5/8" Cap Screw
29	354090	1	636/656 Feed Assembly (Only inner support bracket shown)

Knife Assembly Drawing



Knife Parts List

Item	Part Number	Qty	Description
1	197003	1	#10 Washer
2	197308	1	Adjuster, Knife
3	197311	1	Cam, Knife Homing
4	197312	1	Spring, Cam
5	197313	1	Plate, Spring Cam
6	357020	1	Actuator, Knife
7	197317	1	Compression Spring
8	351123	1	Knife Solenoid Harness
9	517099	1	Knife Motor Assembly
10	354005	1	Upper Bridge Blade
11	354013	1	Molded Idler Roller
12	355018	1	Support, Knife/Drive/Print
13	357003	1	Mount, Solenoid
14	357021K	1	Adapter, Knife Motor
15	357005	1	Clutch Adapter w/ 8:32 x 1/4 SS
16	357006	1	Spring, Torsion Front (Natural Finish)
17	357007	1	Spring, Torsion Rear (Red Finish)
18	357011	1	Static Brush
19	357013	1	Mount, Cam Stop
20	357016	1	Standoff, Solenoid Arm

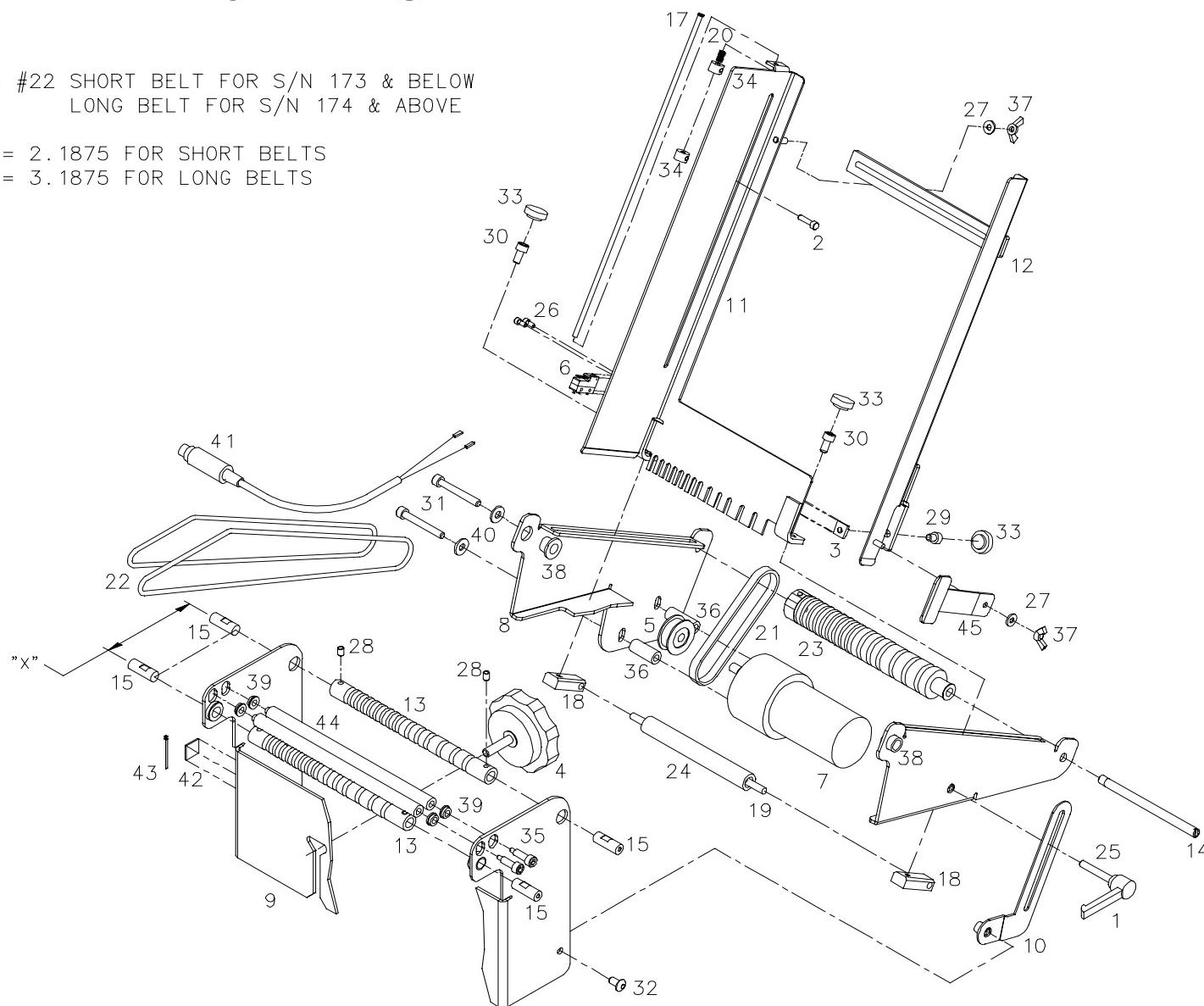
Item	Part Number	Qty	Description
21	357019K	1	Clutch, Square Drive
22	357018	1	Knife Guard
23	357091	1	Bracket, Inner Knife Assembly
24	357092	1	Bracket, Outer Knife Assembly
25	357093	1	Knife, Stationary
26	357094	1	Knife Rotary
27	990016	2	6:32 x 3/8 Cap Screw
28	990082	4	10:32 x 5/8 Cap Screw
29	990120	5	1/4:20 x 1/2 Cap Screw
30	990123	2	1/4:20 x 1 Cap Screw
31	990102	2	#10 SAE Washer
32	990261	1	3/16 Snap Ring
33	990449	3	M3 x 6 Cap Screw
34	999055	1	8:32 x3/8 Flat Head
35	999099	2	3/16 x 5/16 x 1/4 Flanged Bushing
36	989978	1	#8 Star Washer
37	990065	1	8:32 x 3/8 Button Head
38	990066	4	8:32 x 1/4 Button Head
39	990019	1	6:32 x 1/4 Button Head
40	990122	1	1/4:20 x 3/4 Flat Head
41	999097	1	Flanged Bushing (Inc. w/ 357021k)

Stacker Assembly Drawing

ITEM #22 SHORT BELT FOR S/N 173 & BELOW
LONG BELT FOR S/N 174 & ABOVE

"X" = 2.1875 FOR SHORT BELTS

"X" = 3.1875 FOR LONG BELTS

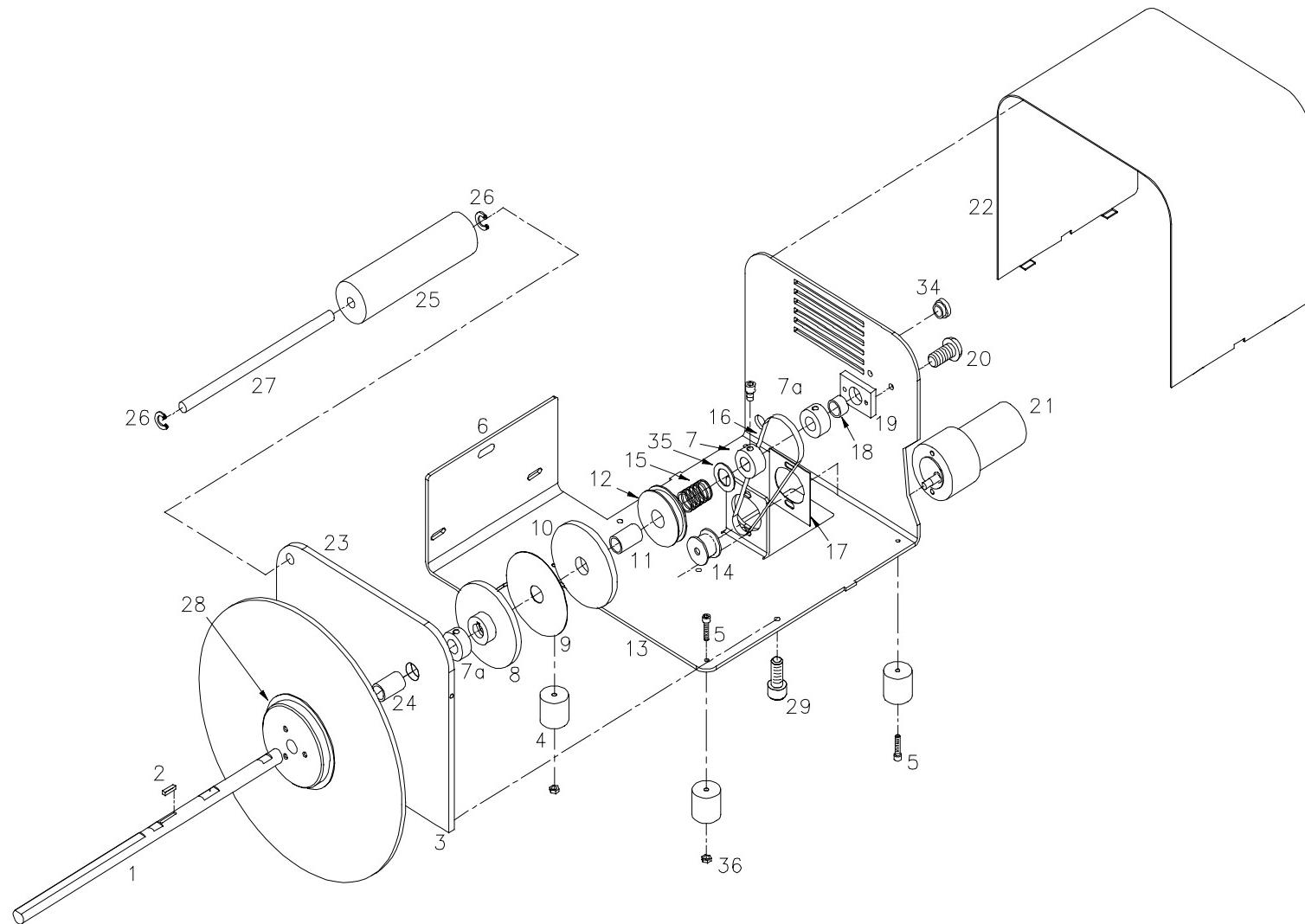


Stacker Parts List

Item	Part Number	Qty	Description
1	144034	1	Feed Lock Knob
2	184002	1	Thumb Screw Lock
3	188008	1	Stacker T-Nut
4	358023	1	Knob Assembly
5	247035	1	Drive Pulley
6	351160	1	Full Stacker Switch Harness
7	351161	1	Stacker Motor Harnessed
8	358001	1	Stacker Support
9	358091	1	Stacker Base Assembly
10	358004	1	Stacker Lock
11	358006	1	Rail, Rear Stacker
12	358007	1	Rail, Front Stacker
13	358008	2	Roller, Idler
14	358010	1	Shaft, Roller
15	358011	4	Pivot, Idler Roller
16	358012	1	Plate, Stacker Locator (not shown)
17	358013	1	Trip Rod
18	358015	2	Roller Support
19	358016	1	Shaft, Roller
20	358017	1	Spring, Trip Rod
21	358018	1	1/5P 40T Timing Belt
22	358021 358019	15 15	O'Ring (long) "X" = 3.1875 O'Ring (short) "X" = 2.1875

Item	Part Number	Qty	Description
23	358092	1	Roller, Stacker Assembly
24	358094	1	Roller, Stacker Support Assembly
25	989979	1	10:32 x 1 Set Screw
26	990006	2	4:40 x 1/4 Cap Screw
27	990037	2	#6 SAE Washer
28	990042	4	8:32 x 3/16 Set Screw
29	990079	1	10:32 x 1/4 Cap Screw
30	990080	2	10:32 x 3/8 Cap Screw
31	990085	2	10:32 x 1-1/4 Cap Screw
32	990090	1	10:32 x 3/8 Button Head
33	990313	3	#10 Thumb Screw
34	990369	2	1/8" Collar
35	990446	2	.188 x .500 x 8:32 Shoulder Screw
36	990450	2	.375 Round Spacer
37	990641	2	6:32 Wing Nut
38	999044	2	.313 x .437 x .375 Flanged Bushing
39	999100	4	3/16 x 5/16 x 1/8 Flanged Bearing
40	990102	2	#10 SAE Washer
41	351125	1	Stacker Harness
42	990533	1	Tie Down
43	990513	1	Wire Tie
44	358005	2	Pressure Roller
45	358020	1	Label Side Support

Rewind Assembly Drawing

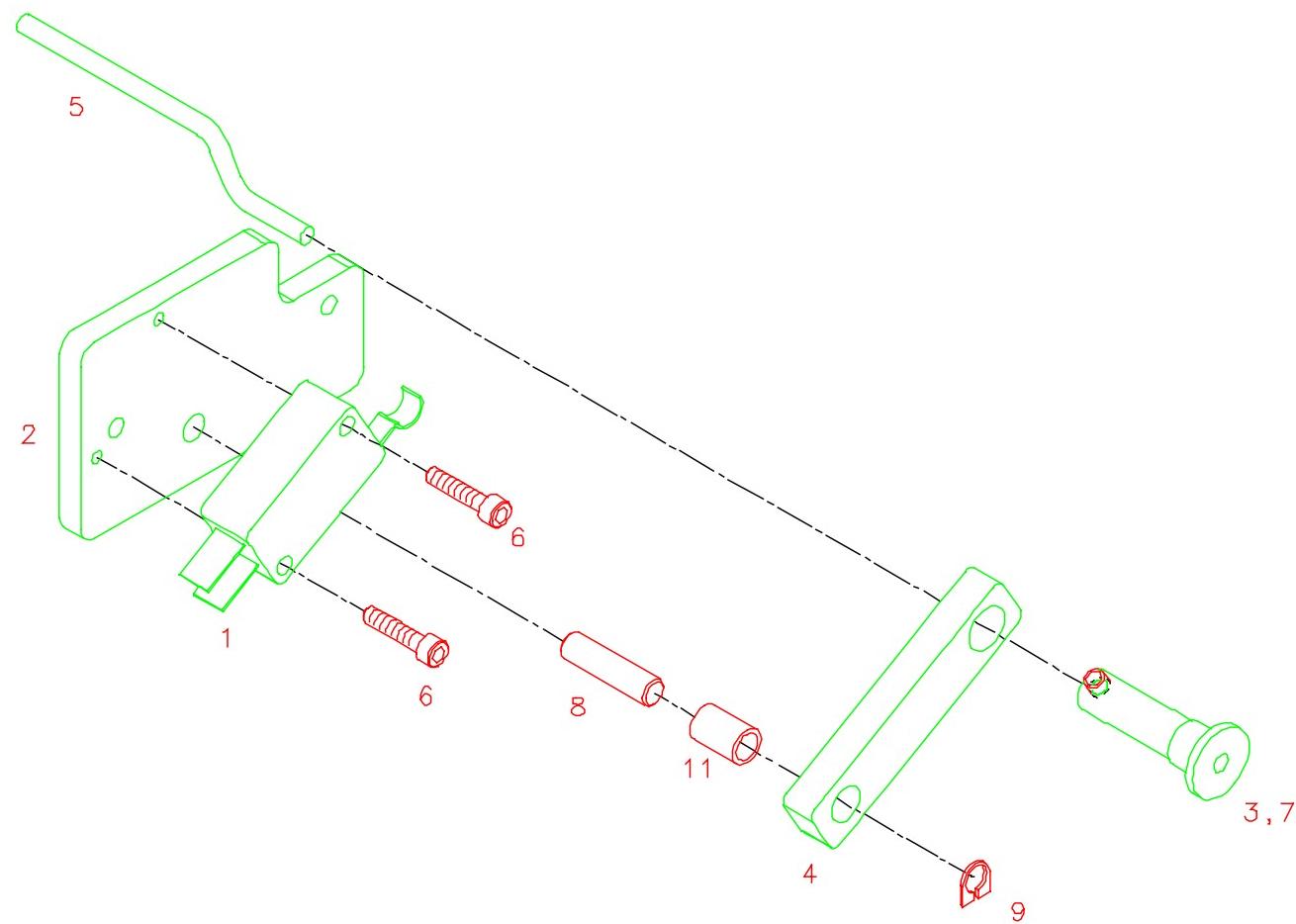


Rewind Parts List

Item	Part Number	Qty	Description
1	112033	1	Shaft, 6x6 rewind
2	112035	1	Key, 1/8 x 1/8 x 3/8
3	923009	1	10" roll disc
4	111032	4	Rubber feet
5	990054	4	8:32 x 1 cap screw
6	111029	1	Base
7	990374	3	1/2" collar
8	112028	1	Driven disc
9	112032	1	Friction disc
10	112030	1	Drive disc
11	999118	1	1/2 x 5/8 x 1 1/4 bushing
12	112005	1	28t 1/5p timing belt pulley
13	990091	2	10:32 x 1/2 btn hd screw
14	197078	1	12t 1/5p timing belt pulley
15	990465	1	comp. spring
16	112031	1	Timing belt 67t 1/5p
17	112036	1	EAR motor insulation
18	999121	1	1/2 x 3/4 x 1/2 bushing

Item	Part Number	Qty	Description
19	112037	1	support, shaft bearing
20	990090	2	10:32 x 3/8 btn hd screw
21	351161	1	Stacker motor harnessed
22	111201	1	Cover
23	111030	1	Upright
24	999147	1	1/2 x 5/8 x 3/4 bushing
25	111027	1	Decurler roller assy
26	990264	2	3/8" snap ring
27	112034	1	Decurler shaft
28	111025	2	Hub, 3" rewind insert
29	989974	3	8:32 x 3/8 cap screw
30	351183	1	6x6 rewind motor harness (not shown)
31	923010	1	10" roll disc (not shown)
32	990026	6	6:32 x 3/4 fh screw (not shown)
33	923014	2	Roll unwind disc hub (not shown)
34	251136	1	Bushing, Strain Relief (not shown)

Stock Out Sensor Assembly Drawing



Stock Out Sensor Parts List

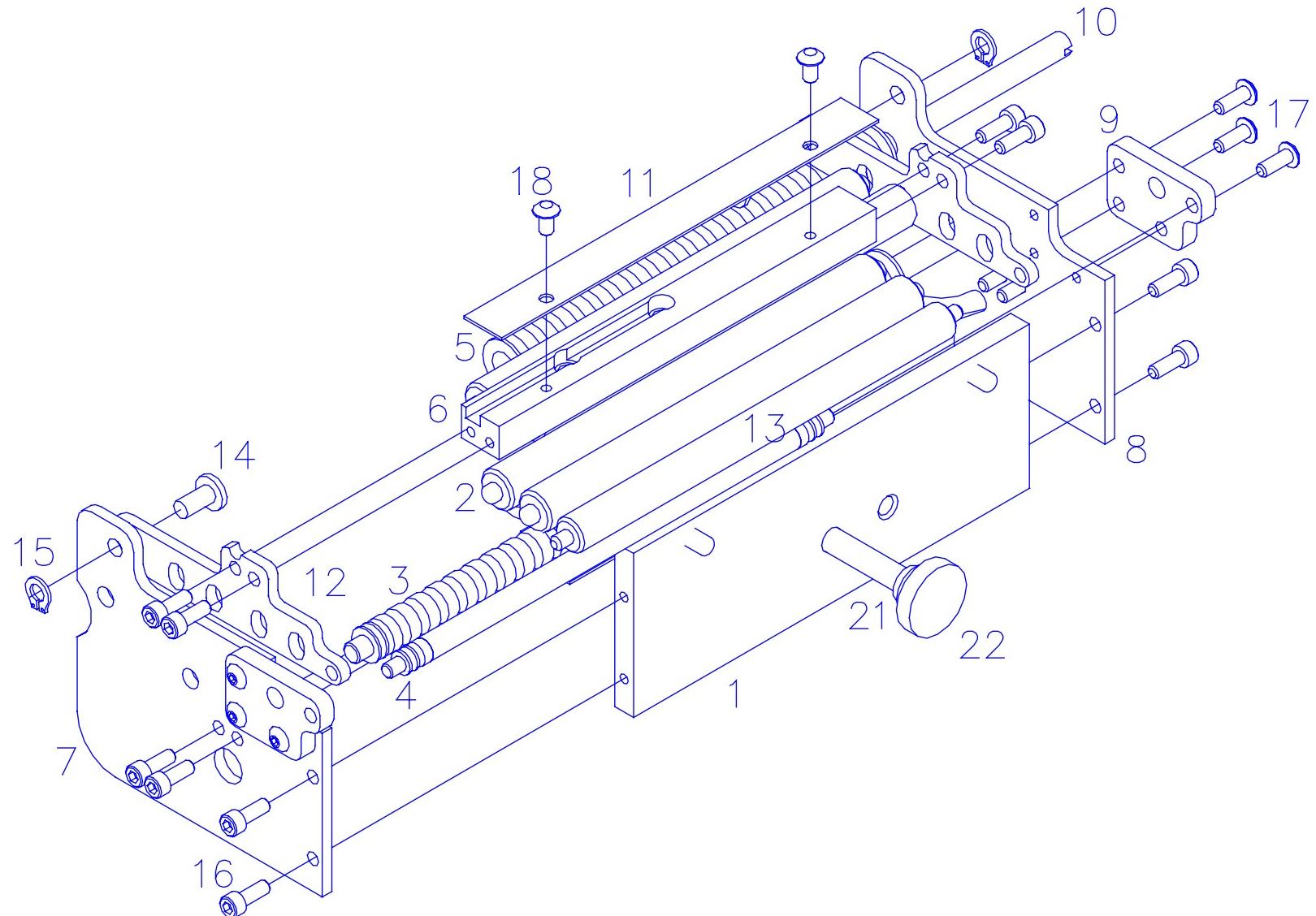
Item	Part Number	Qty	Description
1	191120	1	Stock Out Micro Switch
2	351145	1	Mount Stock Out Switch
3	331149	1	Shaft Stock Out Switch
4	351150	1	Arm Stock Out Switch
5	351151	1	Rod Actuator Stock out
6	989973	2	4-40 x .50 Cap Screw
7	990024	1	6-32 x .125 Set Screw
8	990255	1	3/16 x 3/4 Dowel Pin
9	990261	1	3/16 Snap Ring
10	990456	2	8-32 x .50 Flat Head Screw
11	999098	1	3/16 x 1/4 x 3/8 Bushing

Optional Stackers

4.25" Stacker Specifications

- 4.25" Web x 1 ¾" Feed
- Will work on 636, 656 & 676
- Old machines may require the knife strut to be replaced with one that has a mount hole – Part number 355018.
- Fabric and heat seal only - not for pressure sensitive or tags.
- Stack height dependent on material size and weight. (may not reach full stacker height)
- Jam sensor will require relocating the LED to the center position for the 676 and back set of holes for the 636 & 656.
- If changing from standard stacker to 4.25" stacker - the knife guard must be changed to match the stacker being used.

Optional 4.25" Pick-up Assembly

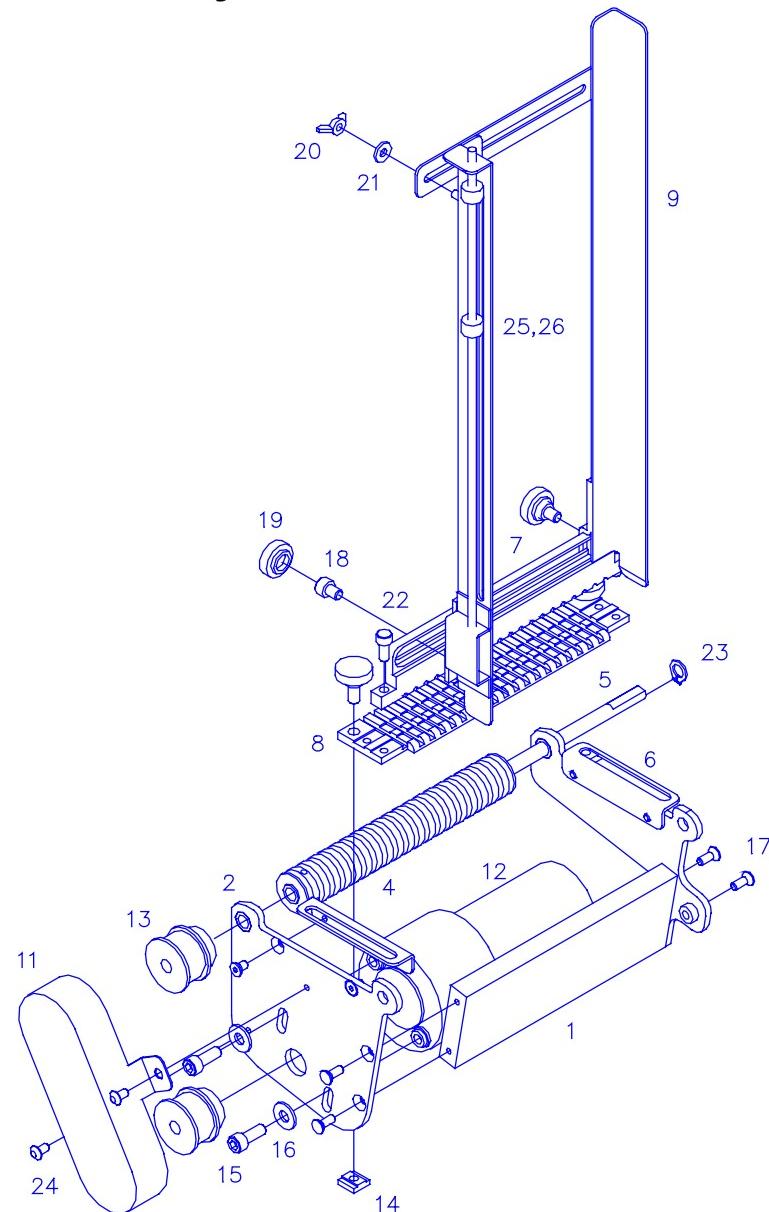


Optional 4.25" Pick-up Parts List

Item	Part #	Description	Qty
1	378286	Base Plate Assy	1
2	378287	Pressure Roller Assy	4
3	378208	Roller Center Drive	1
4	378213	Pick-Up Roller	1
5	378211	Roller Idler	2
6	378204	Sensor Mount Upper	1
7	378131	Side Frame Rear Stacker	1
8	378119	Side Frame Near Stacker	1
9	378129	Support Pick-Up Roller	2
10	378207	Roller Shaft	2
11	378203	Sensor Lock	2
12	378126	Support Roller	2
13	378201	Pick-Up Pressure Roller	1

Item	Part #	Description	Qty
14	990401	Rivet	2
15	990261	3/16" Snap Ring	2
16	990016	6-32 Cap Screw	12
17	990020	6-32 Button Hd. Screw	8
18	990019	6-32 Button Hd. Screw	4
19	378216	Sensor Mount Lower (Not Shown)	1
20	371133	Jam Sensor Harness (Not Shown)	1
21	990124	1/4-20 Cap Screw	1
22	990315	1/4 Thumb Screw Cap	1
23	188014	Static Brush (Not Shown)	1
24	991032	Small Conveyor Belt (Not Shown)	4
25	991028	Large Conveyor Belt (Not Shown)	20

Optional 4.25" Stacker Assembly

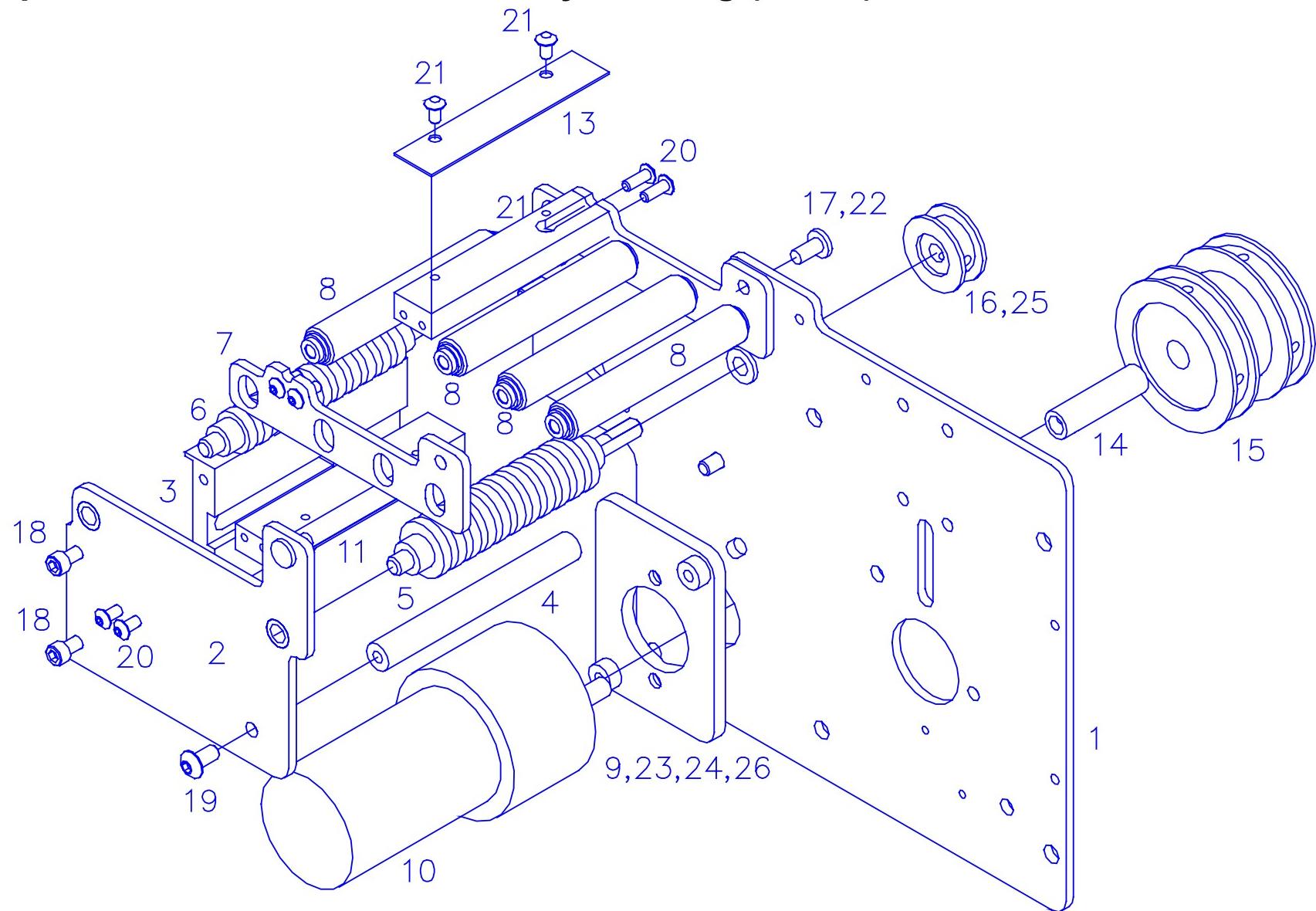


Optional 4.25" Stacker Parts List

Item	Part #	Description	Qty
1	378205	Plate Stacker Support	1
2	378288	Rear Side Frame Assy	1
3	378289	Front Side Frame Assy	1
4	378212	Drive Roller	1
5	378214	Drive Shaft	1
6	378130	Rail Slide Bracket	2
7	378209	Mount Stacker Rail	1
8	378210	Base Stacker Rail	1
9	38215	Stacker Upright Front	1
10	378035	Stacker Upright Rear	1
11	378046	Belt Guard	1
12	351161	Stacker Motor Harnessed	1
13	284022	Pulley Drive Belt	2
14	188008	"T" Nut	4
15	990081	10-32 Cap Screw	2
16	990102	#10 Washer	2

Item	Part #	Description	Qty
17	990028	6-32 Flat Hd. Screw	4
18	990079	10-32 Cap Screw	2
19	990313	#10 Thumb Screw Knob	4
20	990641	#6 Wing Nut	1
21	990037	#6 Washer	1
22	990080	10-32 Cap Screw	2
23	990262	1/4" Snap Ring	1
24	990019	6-32 Button Hd. Screw	2
25	990369	1/8" Collar	2
26	184002	Web Guide Thumb Screw	1
27	351125	Stacker Harness (NS)	1
28	351160	Full Stacker Harn. (NS)	1
29	371133	Jam Sensor Harn. (NS)	1
30	358018	Timing Belt (NS)	1
31	990006	4-40 Cap Screw	2

Optional Down Stacker Assembly Drawing (Part 1)

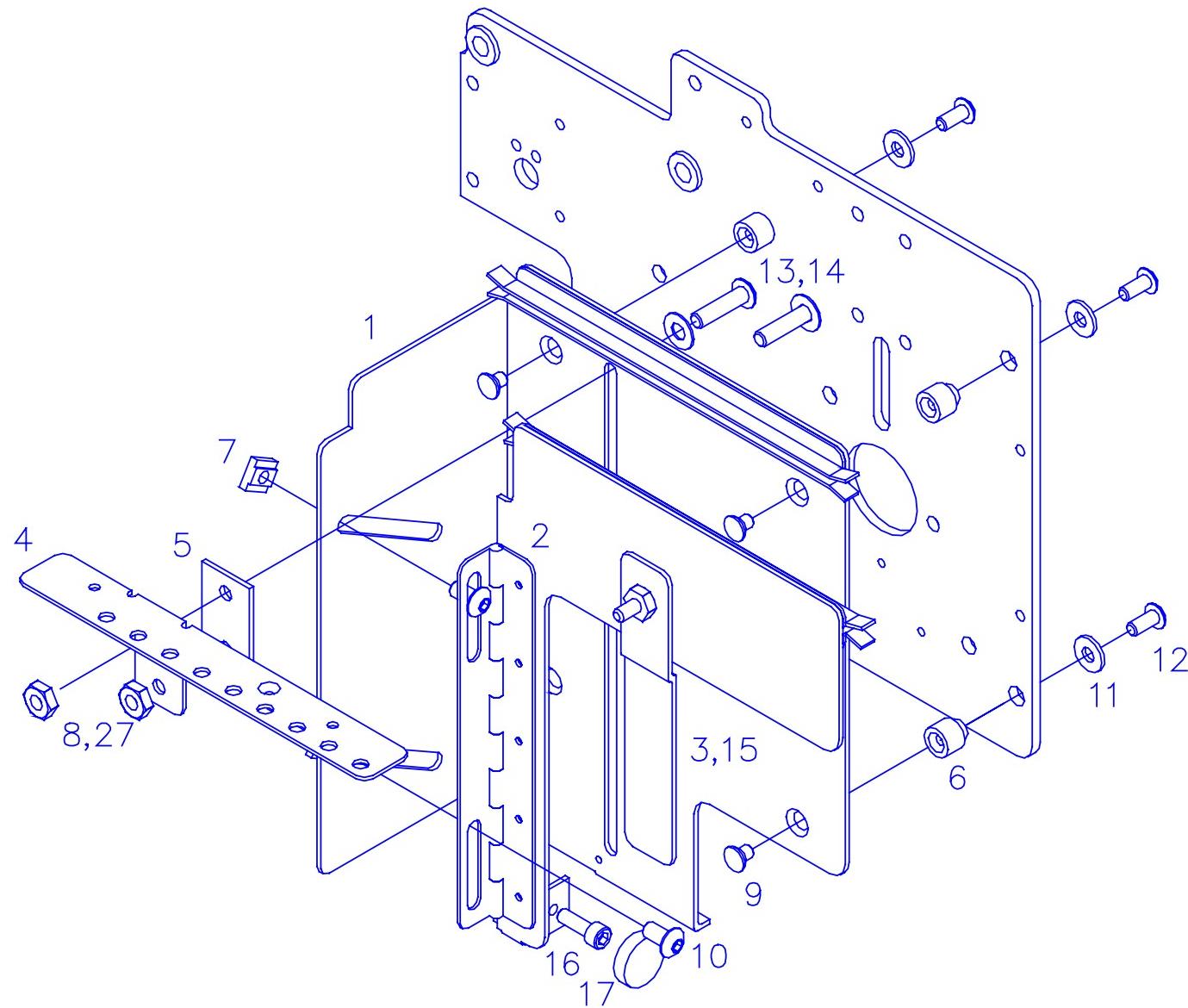


Optional Down Stacker Parts List (Part 1)

Item	Part #	Description	Qty
1	168089	Rear Stacker Frame Assembly	1
2	168088	Front Stacker Frame Assembly	1
3	168026	Mounting Bracket	1
4	168002	Post Spacer	2
5	168025	Main Drive Roller	1
6	168024	Pick-Up Roller	1
7	168017	Roller Bracket Support	2
8	168087	Pressure Roller Assembly	4
9	168029	Plate Motor Mount	1
10	351161	Stacker Motor Harnessed	1
11	168021	Sensor Mount Lower	1
12	168022	Sensor Mount Upper	1
13	168001	Plate Sensor Cover	2
14	168007	Motor Shaft Extension	1

Item	Part #	Description	Qty
15	168082	Pulley Assembly 28T	2
16	168083	Pulley Assembly 12T	1
17	990401	3/16 x 3/8 Rivet	2
18	990051	8-32 Cap Screw	4
19	990090	10-32 Button Hd. Screw	2
20	990020	6-32 Button Hd. Screw	8
21	990019	6-32 Button Hd. Screw	4
22	990261	3/16 Snap Ring	2
23	990102	#10 Washer	2
24	990081	10-32 Cap Screw	2
25	991059	Timing Belt 61T (Not Shown)	2
26	990088	10-32 Flat Hd. Screw	2
27	928012	Spring	3

Optional Down Stacker Assembly Drawing (Part 2)

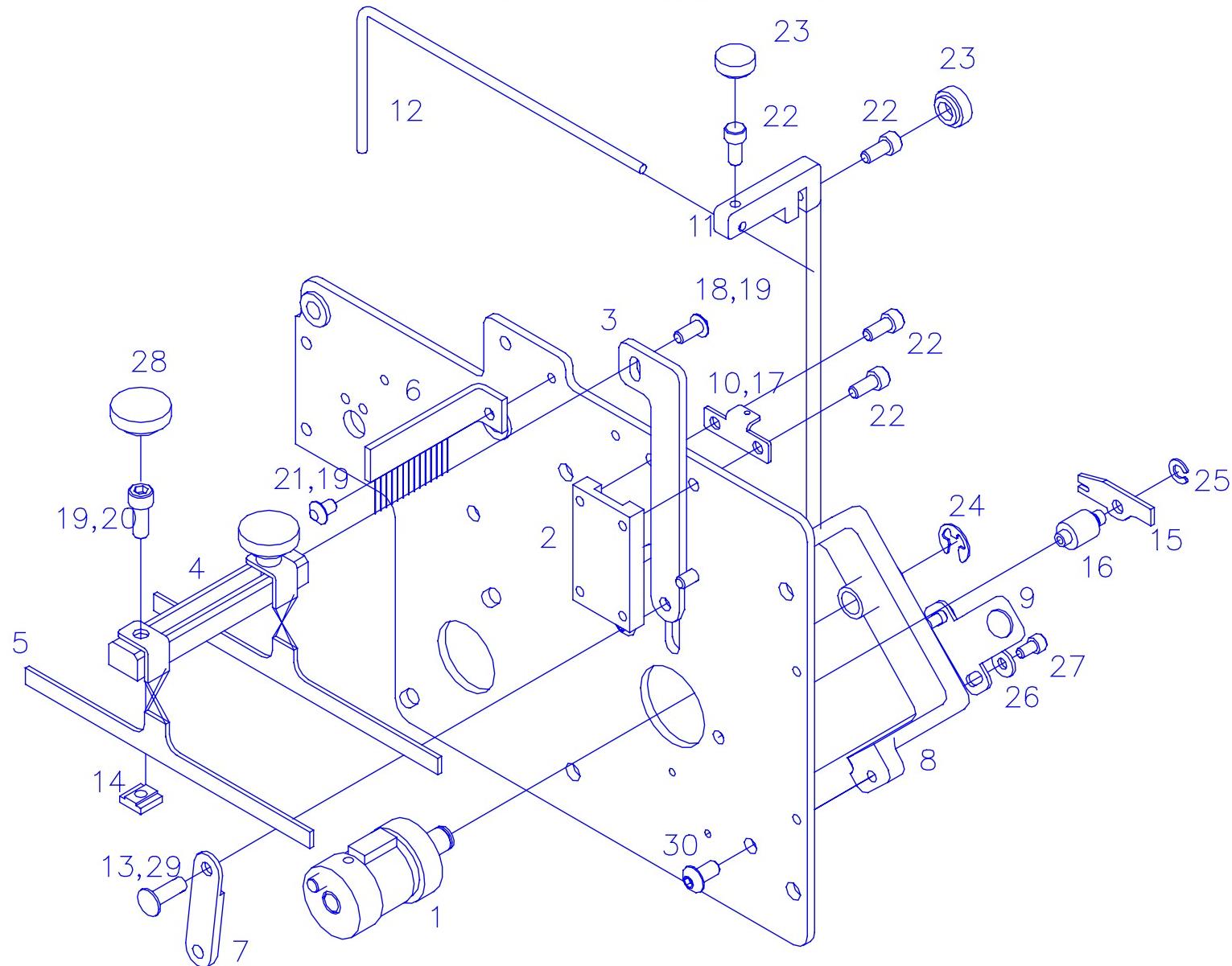


Optional Down Stacker Parts List (Part 2)

Item	Part #	Description	Qty
1	168031	Rear Support Stacker	1
2	168086	Front Stacker Support Assy	1
3	168018	Guide Label	1
4	168027	Platform Slide	1
5	168033	Platform Slide Plate	1
6	168014	Post Stacker Mount	4
7	188008	"T" Nut	2
8	990103	#10 Hex Nut	2
9	990072	8-32 Flat Hd. Screw	4
10	990090	10-32 Button Hd. Screw	2
11	990067	#8 Flat Washer	4
12	990065	8-32 Button Hd. Screw	4

Item	Part #	Description	Qty
13	990092	10-32 Button Hd. Screw	2
14	990729	Nylon Washer	2
15	990053	8-32 Cap Screw	1
16	990314	#8 Thumb Cap	1
17	191120	Micro Switch (Not Shown)	1
18	168039	Label Platform 1 1/4" (Not Shown)	1
19	168040	Label Platform 1 5/8" (Not Shown)	1
20	168041	Label Platform 1 7/8" (Not Shown)	1
21	351125	Stacker Harness (Not Shown)	1
22	371133	Jam Sensor Harness (Not Shown)	1
23	989973	4-40 Cap Screw (Not Shown)	2

Optional Down Stacker Assembly Drawing (Part 3)



Optional Down Stacker Parts List (Part 3)

Item	Part #	Description	Qty
1	168084	Clutch Assy	1
2	168013	Tamper Slide Block	1
3	168012	Tamper Support	1
4	168034	Tamper Mount Bracket	1
5	168028	Tamper	2
6	168036	Static Brush	1
7	168008	Tamper Link	1
8	168085	Mounting Bracket Assy	1
9	168016	Solenoid Mtg. Bracket	1
10	168035	Spring Return Bracket	1
11	168038	Bracket Label Stop	1
12	168037	Rod Label Stop	1
13	168006	Tamper Pivot Pin	1
14	188008	"T" Nut	2
15	197315	Solenoid Actuator Arm	1
16	168045	Stand-off Solenoid Arm	1

Item	Part #	Description	Qty
17	991058	Spring	1
18	990065	8-32 Button Hd. Screw	1
19	989978	#8 Star Washer	3
20	990081	10-32 Cap Screw	2
21	990066	8-32 Button Hd. Screw	1
22	990051	8-32 Cap Screw	6
23	990314	#8 Thumb Screw Cap	2
24	990263	5/16 "E" Snap Ring	1
25	990325	3/16 "E" Snap Ring	1
26	990067	#8 Washer	2
27	990050	8-32 Cap Screw	2
28	990315	#10 Thumb Screw Cap	2
29	990261	3/16 Snap Ring	2
30	990091	10-32 Button Hd. Screw	2
31	990066	8-32 Button Hd. Screw	5
32	168032	Cover (Not Shown)	1